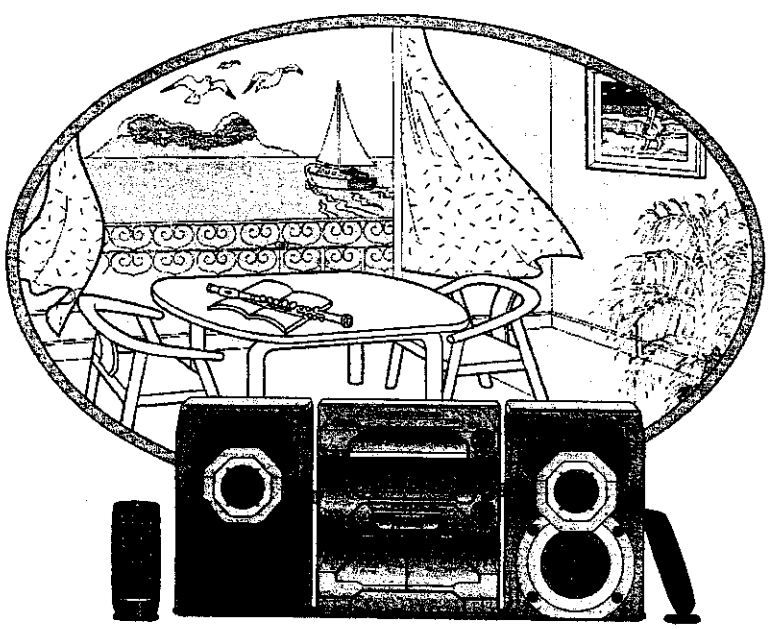
CD Stereo System

Panasonic®

SC-AK27
SC-AK17

Operating Instructions



The illustrations show SC-AK27.

Note:
The "EB" indication shown on the outside packing case indicates United Kingdom.

Before connecting, operating or adjusting this product, please read these instructions completely.
Please save this manual.

COMPACT disc DIGITAL AUDIO

EB EE GN

RQT4708-B

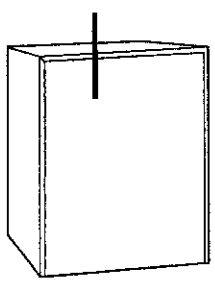
Dear customer

Thank you for purchasing this product.
For optimum performance and safety, please read these instructions carefully.

These operating instructions are applicable to the following system.
These operating instructions, however, fundamentally explain the operation of system SC-AK27.

System	SC-AK27	SC-AK17
Main unit	SA-AK27	SA-AK17
Speakers	SB-AK27	SB-AK17

CLASS 1
LASER PRODUCT



(Back of product)

DANGER	INVISIBLE LASER RADIATION WHEN OPEN. AVOID DIRECT EXPOSURE TO BEAM.	(Inside of product)
ADVARSEL	USYNLIG LASERSTRÅLING VED ÅBNING, NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLING.	(Indersiden at apparatet)
VARO!	AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTÖNTÄ LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.	(Tuotteen sisällä)
VARNING	OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRAKTA EJ STRÅLEN.	(Apparatens insida)
ADVARSEL	USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES OG SIKKERHEDSLÅS BRYTES. UNNGÅ EKSPONERING FOR STRÅLEN.	(Produktets innside)
VORSICHT	UNSICHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET. NICHT DEM STRAHL AUSSETZEN.	(Im Inneren des Gerätes)

CAUTION!

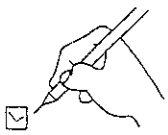
THIS PRODUCT UTILIZES A LASER.
USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.
DO NOT OPEN COVERS AND DO NOT REPAIR YOURSELF. REFER SERVICING TO QUALIFIED PERSONNEL.

CAUTION!

DO NOT INSTALL OR PLACE THIS UNIT IN A BOOKCASE, BUILT IN CABINET OR IN ANOTHER CONFINED SPACE IN ORDER TO KEEP WELL VENTILATED CONDITION. ENSURE THAT CURTAINS AND ANY OTHER MATERIALS DO NOT OBSTRUCT THE VENTILATION CONDITION TO PREVENT RISK OF ELECTRIC SHOCK OR FIRE HAZARD DUE TO OVERHEATING.

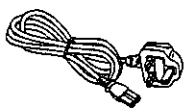
Supplied accessories

Please check and identify the supplied accessories.

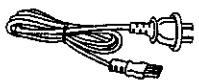


☐ **AC power supply cord ..... 1 pc.**

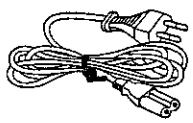
For United Kingdom (RJA0044-1C)



For Australia and New Zealand (RJA0035-X)



For others (RJA0019-2K)



☐ **Remote control transmitter ..... 1pc.**

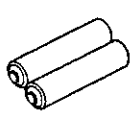
SC-AK27

(RAK-CH944WK)

SC-AK17

(RAK-CH943WK)

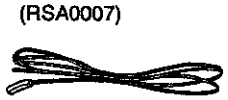
☐ **Batteries for remote control ..... 2pcs.**



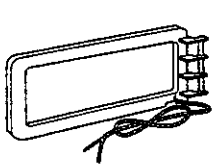
☐ **FM indoor antenna ..... 1pc.**

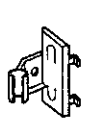
For Australia and New Zealand (RSA0006-J)

For others (RSA0007)

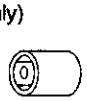


☐ **AM loop antenna set (RSA0022-L)**
AM loop antenna ..... 1pc.
Antenna holder ..... 1pc.





☐ **Antenna plug adaptor (SJP9009) ..... 1pc.**
(United Kingdom only)



Use numbers indicated in parentheses when asking for replacement parts.

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Suggestions for safety

Placement

Avoid placing the unit in areas of :
- direct sunlight
- high temperature
- high humidity
- excessive vibration
- uneven surfaces (Place the unit on a flat level surface.)

Such conditions might damage the cabinet and/or other component parts and thereby shorten the unit's service life.
To protect the unit against sound distortion and acoustical effects, please place the unit at least 15 cm away from wall surfaces etc.

Stacking

Never place heavy items on top of the unit or the AC power cord.

Voltage

- It is very dangerous to use an AC power source of high voltage such as for an air conditioner.
  A fire might be caused by such a connection.
- A DC power source can not be used.
  Be sure to check the power source carefully, especially if on a ship or other place where DC is used.

Power cord protection

- Avoid cuts, scratches or poor connection of the AC power cord, as this may result in fire or electric shock.
  Excessive bending, pulling or slicing of the cord should also be avoided.
- Do not pull on the cord when you are disconnecting the power, as this could cause an electric shock. Grasp the plug firmly when you disconnect the power supply.
- Never touch the plug with wet hands or a serious electric shock could result.

Foreign material

- Ensure that no foreign objects, such as needles, coins, screwdrivers etc., accidentally fall into the unit.
  Otherwise, a serious electric shock or malfunction could occur.
- Be extremely careful about spilling water or liquid on/into the unit, as a fire or electric shock could occur.
  (Disconnect the power plug and contact your dealer immediately if this occurs.)
- Avoid spraying insecticides onto the unit as they contain flammable gases which can be ignited.
- Insecticides, alcohol, paint thinner and similar chemicals should never be used to clean the unit as they can cause flaking or cloudiness to the cabinet finish.

Service

- Never attempt to repair, disassemble or reconstruct the unit if there seems to be a problem.
  A serious electric shock could result if you ignore this precautionary measure.
- If a problem occurs during operation (the sound is interrupted, indicators fail to light up, smoke is detected, etc.) contact your dealer or Authorized Service Center immediately.
- Disconnect the power supply if the unit will not be used for a long time. Otherwise the operation life could be shortened.

(For United Kingdom)

("EB" area code model only)

For your safety, please read the following text carefully.

This appliance is supplied with a moulded three pin mains plug for your safety and convenience.
A 5-ampere fuse is fitted in this plug.
Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5-ampere and that it is approved by ASTA or BSI to BS1362.
Check for the ASTA mark ⓐ or the BSI mark ⓚ on the body of the fuse.

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.
If you lose the fuse cover the plug must not be used until a replacement cover is obtained.
A replacement fuse cover can be purchased from your local dealer.

CAUTION!
IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY.
THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13-AMPERE SOCKET.

If a new plug is to be fitted please observe the wiring code as shown below.
If in any doubt please consult a qualified electrician.

IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:
Blue: Neutral, Brown: Live.
As these colours may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:
The wire which is coloured Blue must be connected to the terminal which is marked with the letter N or coloured Black or Blue.
The wire which is coloured Brown must be connected to the terminal which is marked with the letter L or coloured Brown or Red.

WARNING: DO NOT CONNECT EITHER WIRE TO THE EARTH TERMINAL WHICH IS MARKED WITH THE LETTER E, BY THE EARTH SYMBOL ⏚ OR COLOURED GREEN OR GREEN/YELLOW.

THIS PLUG IS NOT WATERPROOF—KEEP DRY.

Before use

Remove the connector cover.

How to replace the fuse

The location of the fuse differ according to the type of AC mains plug (figures A and B). Confirm the AC mains plug fitted and follow the instructions below.
Illustrations may differ from actual AC mains plug.

1. Open the fuse cover with a screwdriver.

Figure A

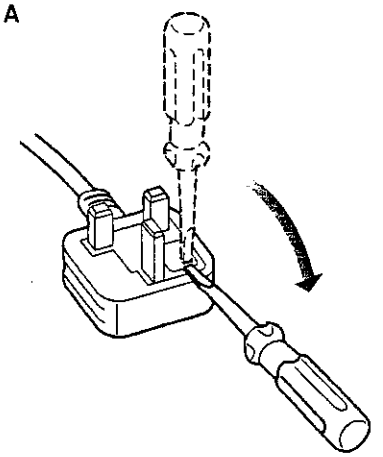
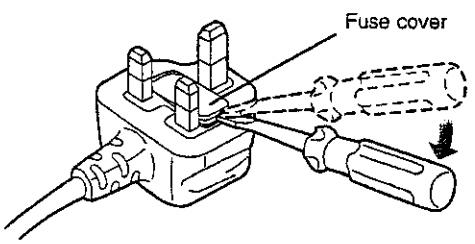


Figure B



2. Replace the fuse and close or attach the fuse cover.

Figure A

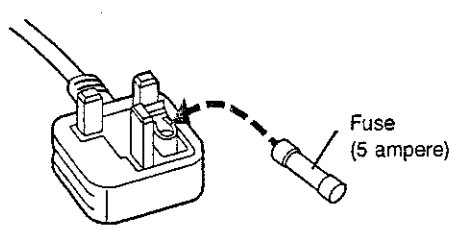
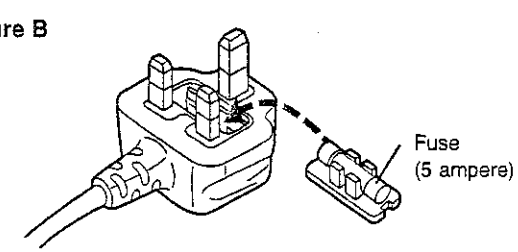


Figure B



Concerning the remote control

Battery installation A

Use of batteries

- Do not mix old and new batteries, or batteries of different types (manganese and alkaline, etc.).
- Never subject batteries to excessive heat or flame; do not attempt to disassemble them; and be sure they are not short-circuited.
- If the remote control is not to be used for a long period of time, remove the batteries and store them in a cool, dark place.
- Do not attempt to recharge alkaline or manganese batteries.
- Do not use rechargeable type batteries.

Correct method of use B

Operation notes

- Do not place obstacles between the remote control signal sensor and remote control unit.
- Do not expose the remote control signal sensor to direct sunlight or to the bright light of an invertor fluorescent light.
- Take care to keep the remote control signal sensor and end of the remote control unit free from dust.
- If this system is installed in a rack with glass doors, the glass doors' thickness or colour might make it necessary to use the remote control a shorter distance from the system.

To prevent damage

- Never place heavy items on top of the unit.
- Do not disassemble or reconstruct the unit.
- Do not spill water or other liquids into the unit.

Placement of speakers

Speakers are designed identically so that no left or right channel orientation is necessary. C

Note

Keep your speakers at least 10 mm away from the system for proper ventilation.

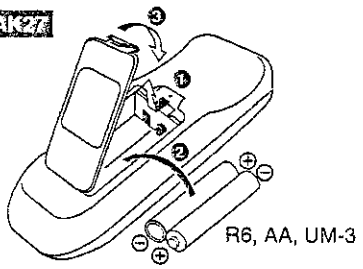
Caution

- **Use the speakers only with the recommended system. Failure to do so may lead to damage to the amplifier and/or the speakers, and may result in the risk of fire. Consult a qualified service person if damage has occurred or if you experience a sudden change in performance.**
- **Do not attach these speakers to walls or ceilings.**

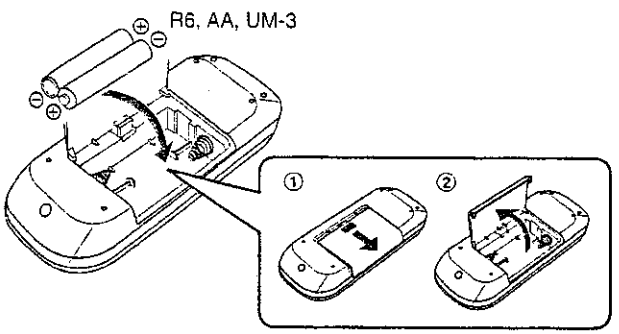
A

Insert the batteries in the correct polarities (⊕, ⊖).

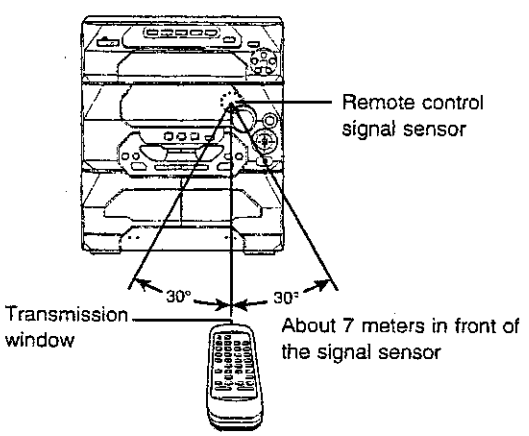
SC-AK27



SC-AK17

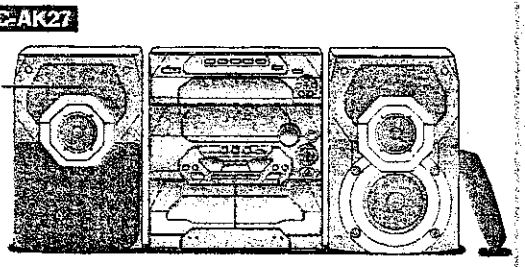


B

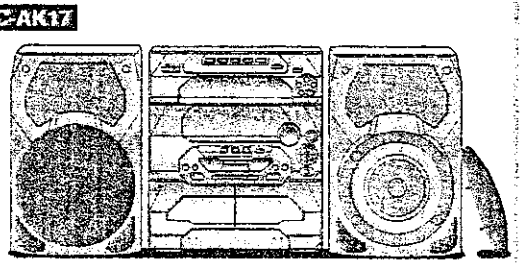


C

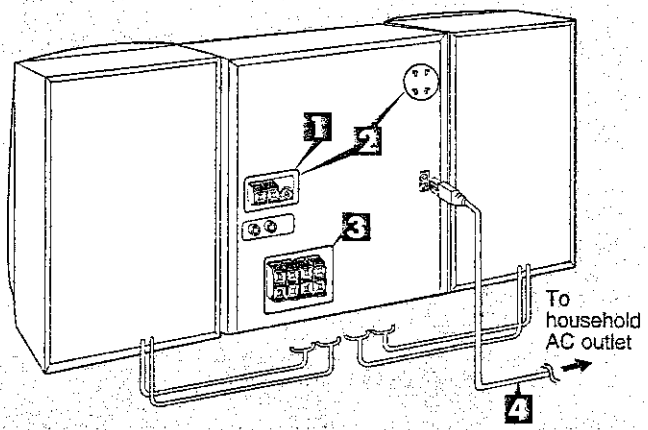
SC-AK27



SC-AK17



Connections



Basic connections (for supplied accessories)

- Plug the AC power cord into a household AC outlet only after all other connections have been made.
- To prepare the AM loop antenna wire and speaker cords, twist the vinyl cover tip and pull off.

1 Connect the FM indoor antenna.

Tape the antenna to a wall or column, in a position where radio signals are received with the least amount of interference.

Except for United Kingdom

The configuration of the FM and AM antenna terminals are different.

Note

For best reception sound quality:

An FM outdoor antenna is recommended. (See page 7.)

2 Connect the AM loop antenna.

After attaching the antenna, turn on the system and tune in a broadcast station. Then, turn the antenna to the angle of best reception and least interference.

3 Connect the front speaker cables.

Connect each end of the speaker cables to the terminal lever of the same colour.

Caution

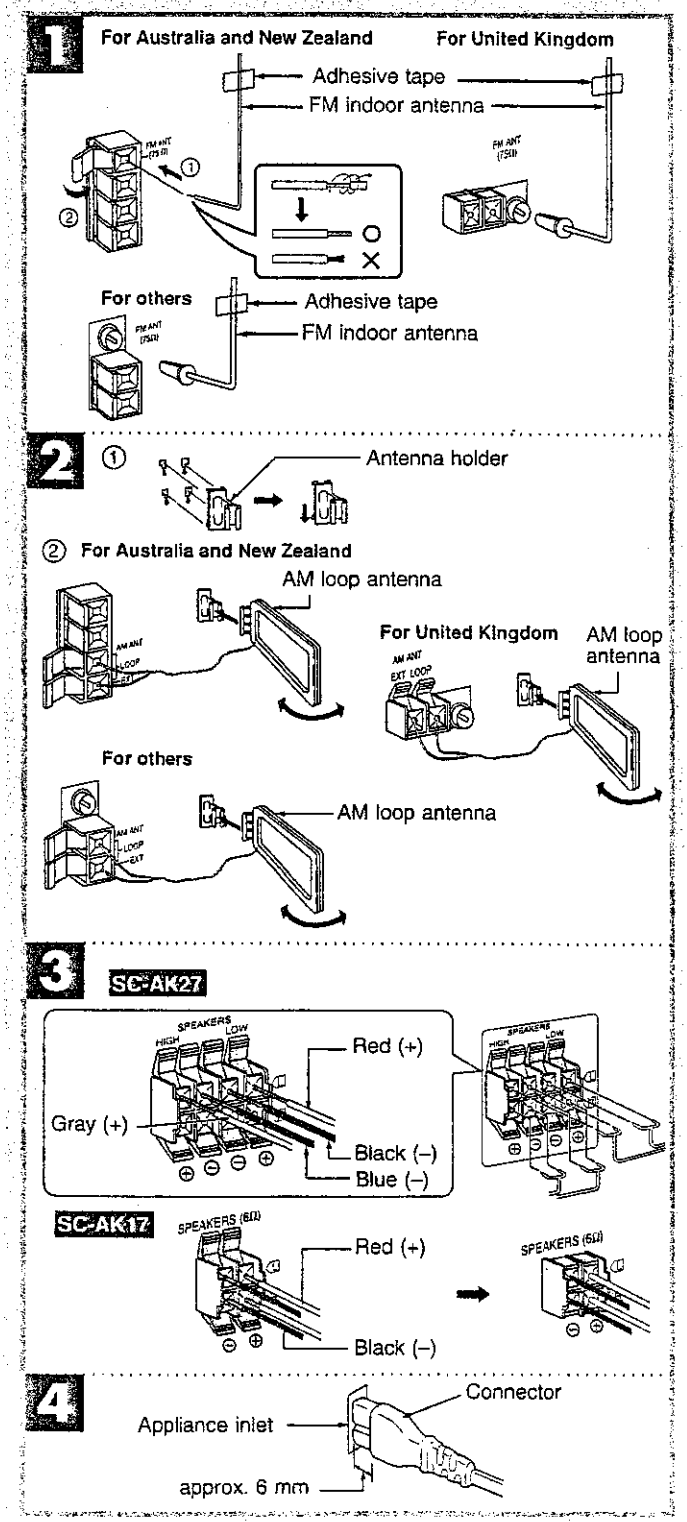
- **Use only the supplied front speakers.**
  The combination of the main unit and front speakers provide the best sound. Using other front speakers can damage the unit and sound quality will be negatively affected.
- To prevent damage to circuitry, never short-circuit positive (+) and negative (–) speaker wires.

4 Connect the AC power cord.

(United Kingdom only)
BE SURE TO READ THE CAUTION FOR AC MAINS LEAD ON PAGE 4 BEFORE PROCEEDING TO STEP 4.

Insertion of connector

Even when the connector is perfectly inserted, depending on the type of inlet used, the front part of the connector may jut out as shown in the drawing.
However there is no problem using the unit.



Optional antenna connections

You may need an outdoor antenna if you use this system in a mountainous region or inside a reinforced-concrete building, etc.

FM outdoor antenna A

Disconnect the FM indoor antenna if an FM outdoor antenna is installed.

① Remove a piece of the outer vinyl insulator.
② Twist the shield braid.
③ Expose the core wire.

Note

An outdoor antenna should be installed by a qualified technician only.

AM outdoor antenna B

Connect the outdoor antenna without removing the AM loop antenna. Run 5 to 12 m of vinyl-covered wire horizontally along a window or other convenient location.

Note

When the unit is not in use, disconnect the outdoor antenna to prevent possible damage that may be caused by lightning. Never use an outdoor antenna during an electrical storm.

External unit connection C

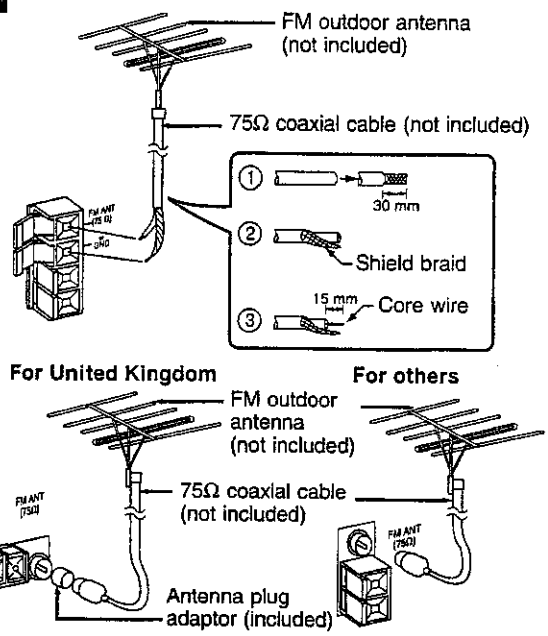
- For details, refer to the instruction manual of the units which are to be connected.
- This example shows how to connect an analog player with the PHONO OUT/LINE OUT switch.
- When units other than those described below are to be connected, please consult with your audio dealer.

Note

- Only an analog player with a built-in phono equalizer can be connected.
- Set the switch to the "LINE OUT" position at the back of the analog player.

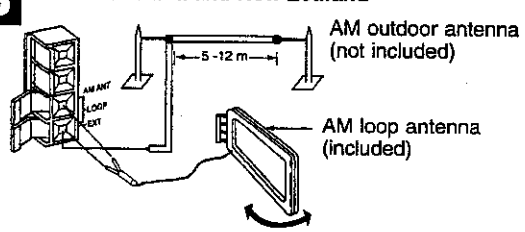
A

For Australia and New Zealand

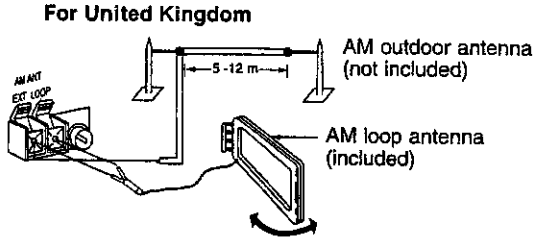


B

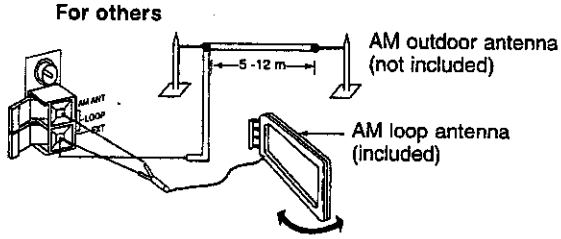
For Australia and New Zealand



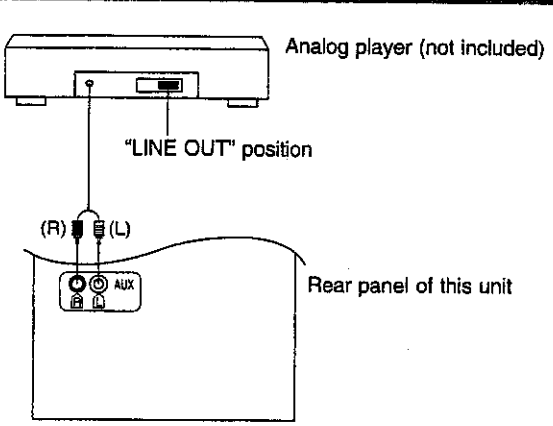
For United Kingdom



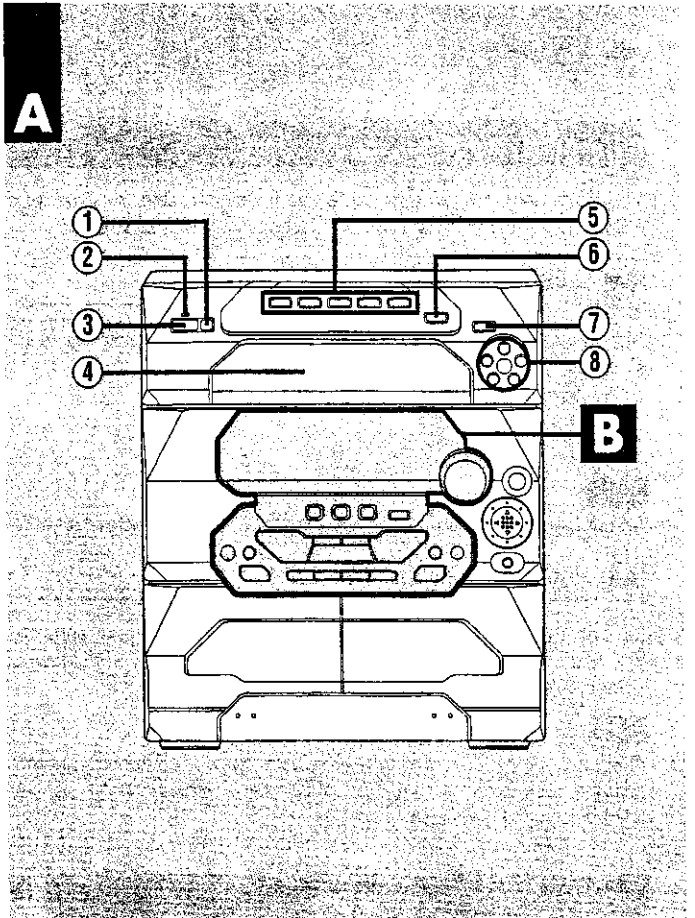
For others

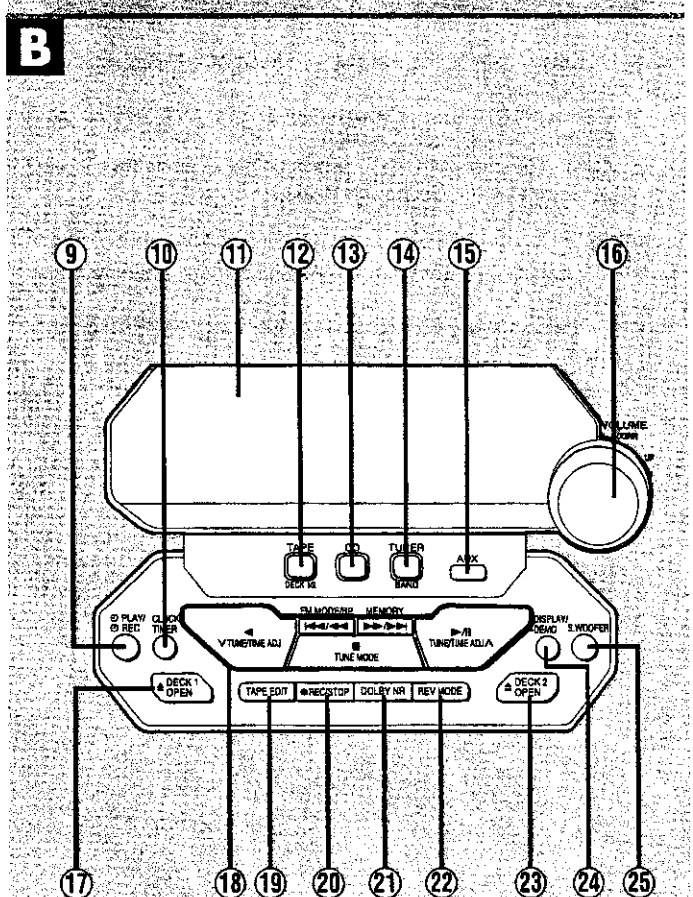


C



Front panel controls





Main unit A

No.	Name	Ref. page

① **Economy button (ECO)** 10

② **AC supply indicator (AC IN)**
This indicator lights when the unit is connected to the AC mains supply.

③ For Australia and New Zealand
Standby/on switch (⏻/I, POWER) 10

For others
Standby/on switch (⏻/I) 10
Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.

④ **Disc tray**

⑤ **Disc select buttons and indicators (DISC 1–DISC 5)** 14

⑥ **CD manager button (CD MANAGER)** 18, 24

⑦ **Random play button (RANDOM)** 16

⑧ **Direct disc tray open/close buttons (⏏ OPEN/CLOSE 1 – ⏏ OPEN/CLOSE 5)** 14

Center console B

No.	Name	Ref. page

⑨ **Play timer/record timer button and indicator (⏲PLAY/⏲REC)** 29, 30

⑩ **Clock/timer button (CLOCK/TIMER)** 11, 29, 30

⑪ **Display**

⑫ **Tape/deck select button (TAPE, DECK 1/2)** 19

⑬ **CD button (CD)** 14

⑭ **Tuner/band select button (TUNER, BAND)** 12

⑮ **AUX button (AUX)** 32

⑯ **Volume control (VOLUME)** 13

⑰ **Deck 1 open button (⏏ DECK 1 OPEN)** 19

⑱ **Basic operating buttons**
Functions change according to the source.

⑲ **Tape edit button (TAPE EDIT)** 25

⑳ **Recording start/stop button (● REC/STOP)** 22

㉑ Except for SC-AK17 model and SC-AK27 Australia and New Zealand model
DOLBY noise reduction button (DOLBY NR) 19

㉒ **Reverse mode select button (REV MODE)** 19

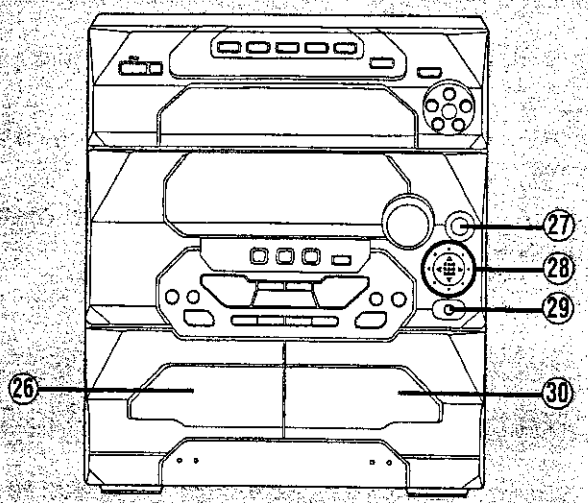
㉓ **Deck 2 open button (⏏ DECK 2 OPEN)** 19

㉔ **Display select/demonstration button (-DISPLAY/–DEMO)** 10, 11, 32

㉕ SC-AK27
Super woofer on/off button (S.WOOFER) 26

SC-AK17
V.BASS button (V.BASS) 26

C



Main unit (continued) C

No.	Name	Ref. page
㉖	Deck 1 cassette holder	19
㉗	3D AI EQ button (3D AI EQ)	27
㉘	Sound equalizer control/indicators (SOUND EQ)	26
㉙	Headphone jack (PHONES)	32
㉚	Deck 2 cassette holder	19

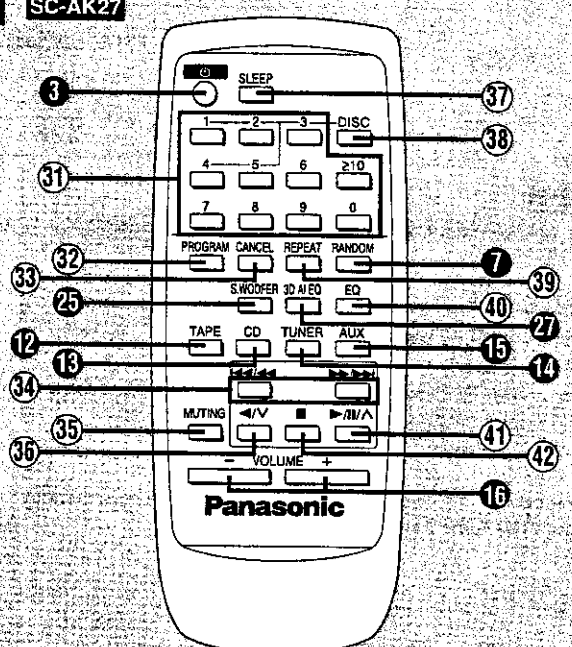
Remote control D

Buttons ❸, ❼, ⓬ to ⓰, ㉕(SC-AK27 only) and ㉗ have the same functions as the corresponding buttons on the main unit.

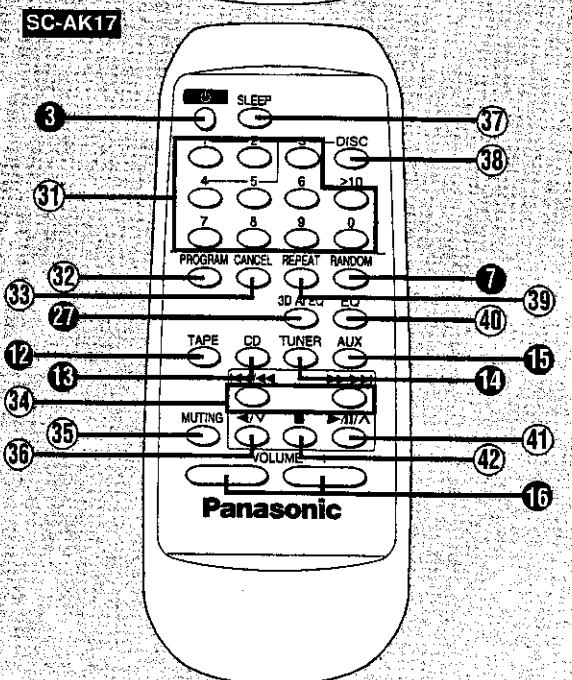
No.	Name	Ref. page
㉛	Numeric buttons	17
㉜	Program button (PROGRAM)	17
㉝	Cancel button (CANCEL)	17
㉞	⏮/◀◀, ▶▶/⏭ buttons (⏮/◀◀, ▶▶/⏭)	15, 20
㉟	Muting button (MUTING)	32
㊱	◀/∨ button (◀/∨)	13, 19
㊲	Sleep button (SLEEP)	31
㊳	Disc button (DISC)	17
㊴	Repeat button (REPEAT)	16
㊵	Equalizer button (EQ)	26
㊶	▶/II/∧ button (▶/II/∧)	13, 15, 19
㊷	Stop button (■)	15, 19

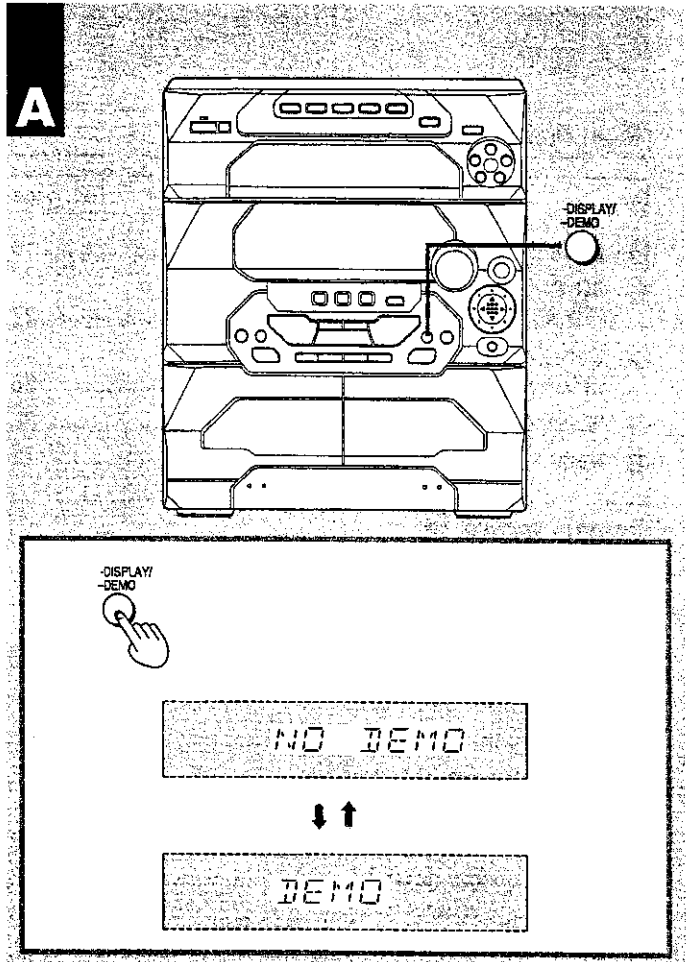
D

SC-AK27



SC-AK17





Turning the demo function off A

If the clock has not been set, a demonstration of the display is shown when the unit is switched to standby.
This function is set to on at the time of purchase.
Turn this function off to get the most from the economy mode (see below).

Press and hold [-DISPLAY/-DEMO] until "NO DEMO" is displayed.
The display changes each time the button is held down.
NO DEMO (off) ↔ DEMO (on)

Economy mode B

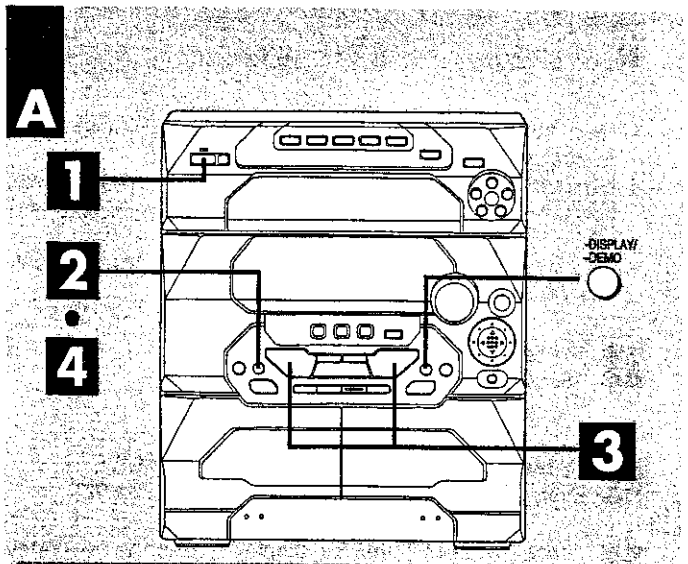
When this mode is used the display remains blank when the unit is switched to standby mode and the power consumed is reduced to 0.6W from a maximum of 12W.
The mode is set to on at the time of purchase.

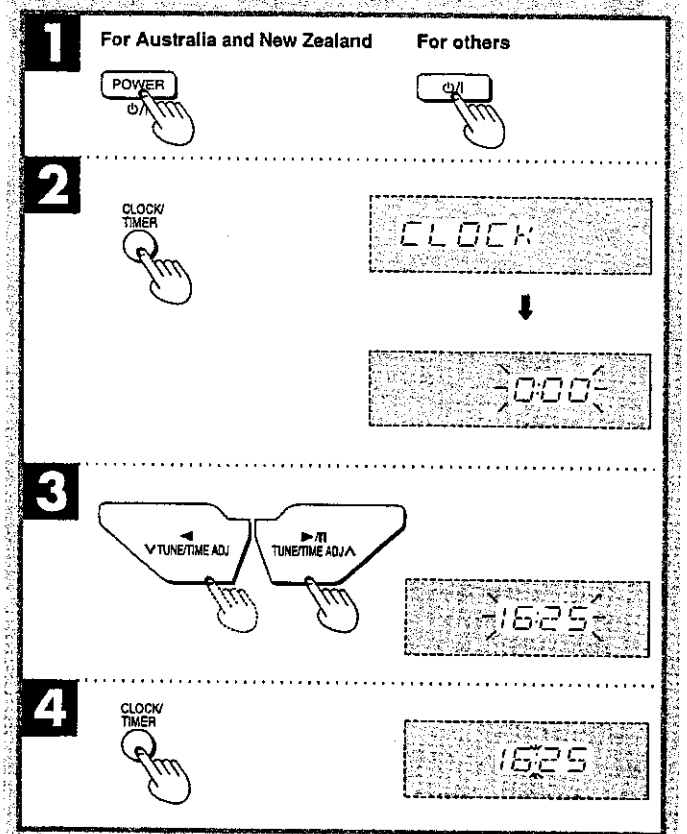
Condition in standby / ECO mode	Display	Power consumption
off	clock	12W
on	blank	0.6W

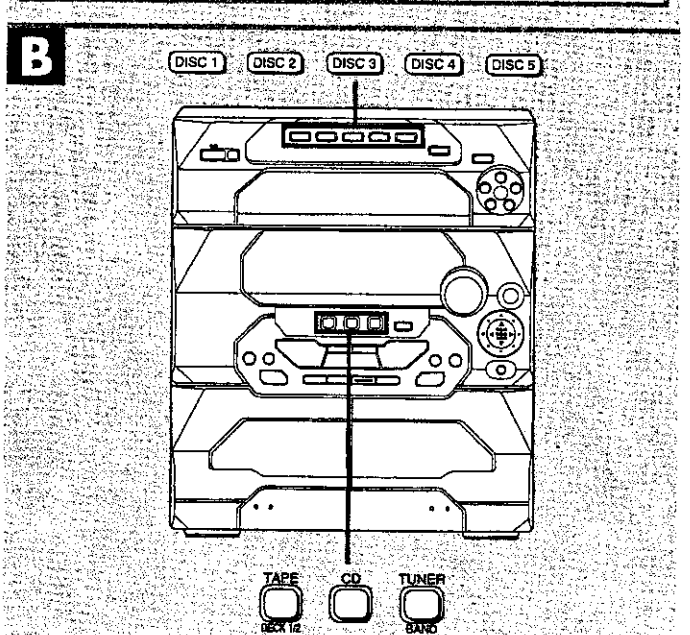
Note
To get the most from this mode, turn the demo function off or set the clock.

Turning ECO on and off
Press [⏻/I] to turn the unit on.
Press [ECO].
The current ECO mode is displayed. Press again to change the mode.
The display changes each time the button is pressed.
NORMAL (off) ↔ ECO (on)

The economy mode can be turned on if the unit is in standby but it cannot be turned off.







Setting the time A

This is a 24-hour display clock.
This example in the figure shows how to set the time for 16:25 (4:25 p.m.).

1 **Press [⏻/ I] to switch on the system.**

2 **Press [CLOCK/TIMER] to select "CLOCK".**
Every time you press the button:

CLOCK → ⏲PLAY → ⏲REC
↑ Previous display ←

3 **(within 7 seconds or so)**
Press [∨] or [∧] to show the present time.

4 **Press [CLOCK/TIMER] to finish setting the time.**
The display will return to whatever was displayed before you set the time.

To display the time when system is ON
Press [CLOCK/TIMER] to select "CLOCK".

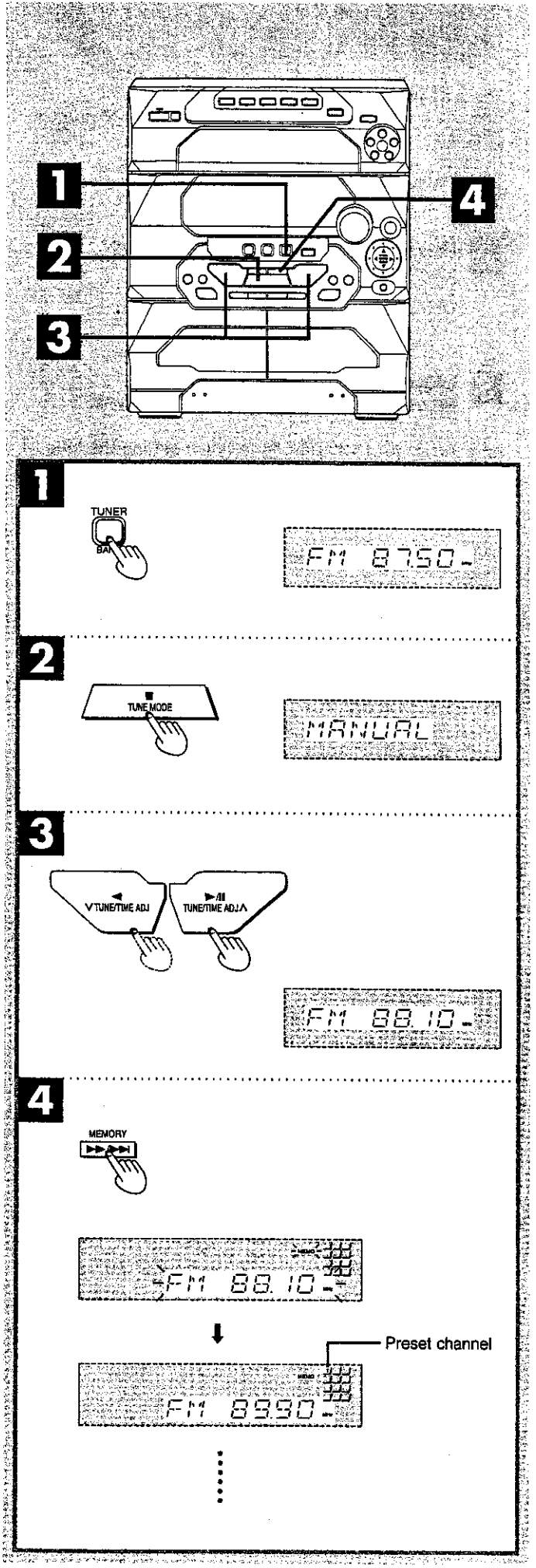
At ECO mode on, to display the time when system is OFF
Press [-DISPLAY/–DEMO].

The time will be displayed for about 5 seconds and then the display will return to whatever was previously displayed.

One-touch play B

When the system is on standby, playing starts automatically when you press one of the following buttons.

Listening to radio broadcasts	
[TUNER]	The station heard previously is tuned in.
Listening to compact discs	
[CD]	Play starts from track 1 of the CD played previously.
[DISC 1] - [DISC 5]	Play starts from track 1 on the selected CD.
Listening to tapes	
[TAPE]	Playback starts from deck 2 if tapes have been installed in both decks.



Presetting radio broadcasts

- Up to 12 stations can be set in each band with the automatic or manual memory presetting.
- If broadcast frequencies are preset in the memory, you can easily tune in any of these frequencies from the system or remote control unit.
- You can preset just those stations you like. (See "Presetting only your favourite stations" below.)

1 Press [TUNER BAND] to select band.
The system will come on automatically.
Every time you press the button: FM ↔ AM

2 Press [TUNE MODE] to select "MANUAL".
Every time you press the button: MANUAL ↔ PRESET.

3 Press [∨] or [∧] until the display shows the frequency from which you want to begin automatic memory presetting.

Tips on tuning in radio stations
① Hold down either arrow button until the frequency numbers start scrolling.
② When near to the frequency you are looking for, press the button repeatedly until the station is tuned in.

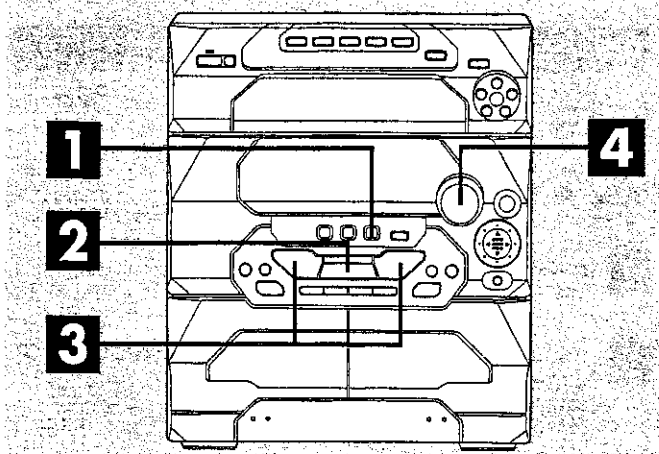
4 Press and hold [MEMORY] until the frequency begins to change.
This will start presetting automatically. When finished, the radio will tune in the last station memorized.

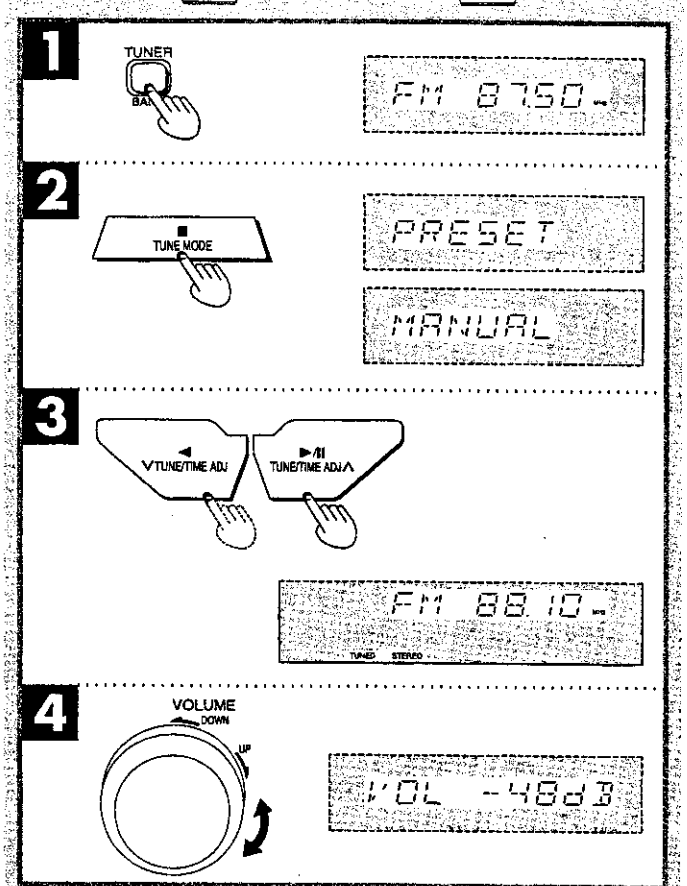
If auto presetting is not possible because radio signals are weak or for some other reasons, do the following.

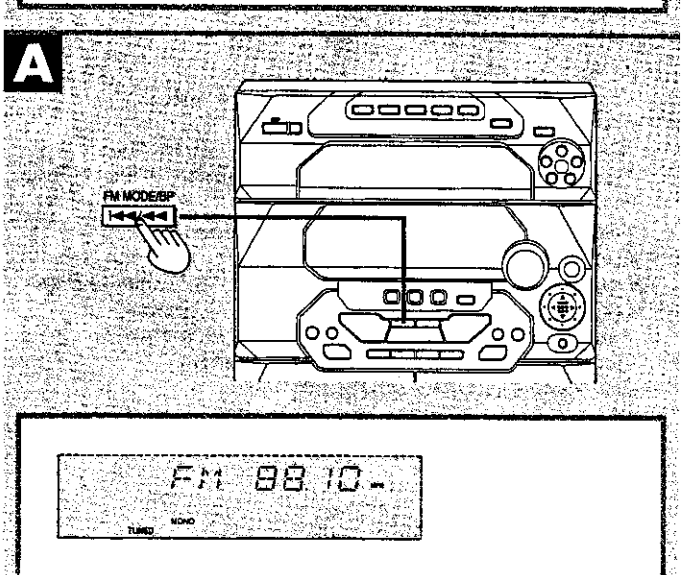
Presetting only your favourite stations

Preset the stations one at a time.
1. Perform step 1 above. Then, press [MEMORY] ("MEMO" flashes) and select a station with [∨] or [∧].
2. While "MEMO" is flashing, press [MEMORY] again and select a preset channel with [∨] or [∧].
3. Press [MEMORY] to preset the station.

Memory retention
Your preset is retained in memory for about 2 weeks while the system is unplugged.







Listening to radio broadcasts

1 Press [TUNER BAND] to select band.
The system will come on automatically.
Every time you press the button: FM ↔ AM

2 Press [TUNE MODE] to select "PRESET" or "MANUAL".
Every time you press the button: MANUAL ↔ PRESET.

PRESET: For preset stations
MANUAL: For non-preset stations

3 Press [∨] or [∧] to select the desired broadcast.
"STEREO" lights when an FM stereo broadcast is being received.
"TUNED" lights when you precisely tune in a broadcast station.

4 Adjust the volume level.

Auto tuning

Auto tuning is an easy way to tune in non-preset stations in the manual mode.

Hold down either [∨] or [∧], and release the button when the frequency starts scrolling.
The frequency will stop scrolling automatically on the first station it picks up.

- When there is outside interference, the radio sometimes stops on a certain frequency where no station is broadcasting.

To stop auto tuning
Press either [∨] or [∧] again.

If noise is excessive in the FM stereo mode A

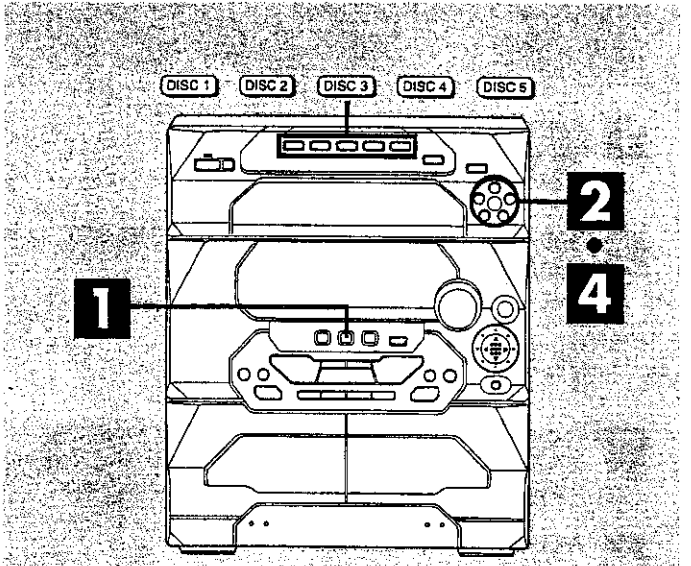
Press [FM MODE/BP]. ("MONO" will light up.)
Sound will be produced in monaural, but this also reduces noise.
Press the button again to cancel. "MONO" will go out.

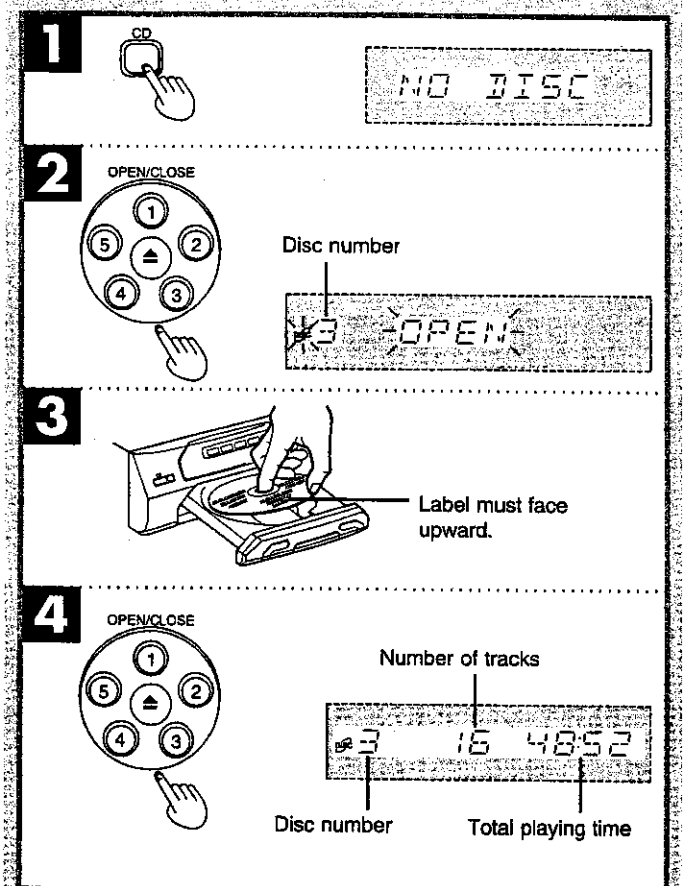
Normally, you'll want to listen in stereo, so leave "MONO" off. This way, you can listen to stereo broadcasts in stereo, and monaural broadcasts in mono.

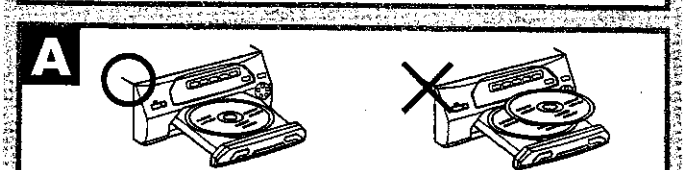
You can preset an FM station in monaural by following the steps under "Presetting only your favourite stations" on page 12. After selecting the station in step 1, select "MONO" with [FM MODE/BP], then continue with steps 2 and 3.

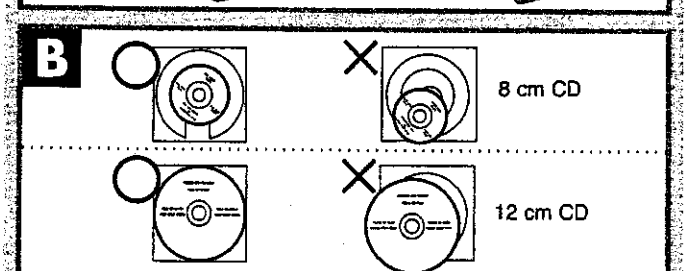
Notes

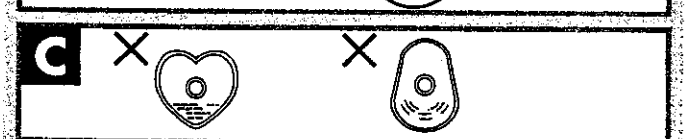
- If you preset stations in memory, you can tune in a preset station by simply selecting the preset channel with the numeric buttons on the remote control.
  1. Press [TUNER] on the remote control.
  2. Press the numeric button(s) to select the desired preset channel.
     To select a two-digit channel:
     Press [≥10] and then the two numbers you want within 10 seconds or so.
- Sound is momentarily interrupted if you load/unload tapes while listening to an AM broadcast.











Listening to compact discs

Loading and checking CDs

Always stop the changer before loading or changing CDs. You cannot change CDs while a disc is playing.

How to load CDs

1 **Press [CD].**
The system will come on automatically.

2 **Press [⏏ OPEN/CLOSE 1] – [⏏ OPEN/CLOSE 5], whichever you want.**
The tray will open.

3 **Set CD in the tray.**

4 **Note the lighted disc indicator(see below) for the disc you are at, and press its corresponding button [⏏ OPEN/CLOSE 1] – [⏏ OPEN/CLOSE 5].**
The tray will close and the disc No., number of tracks and total playing time will be shown on the display.

To load several CDs consecutively or to check which discs are loaded

Press [⏏ OPEN/CLOSE 1] – [⏏ OPEN/CLOSE 5], whichever you want.
The tray will open.
Press another of [⏏ OPEN/CLOSE 1] – [⏏ OPEN/CLOSE 5] to continue loading or checking another disc. After loading or checking all the CDs you want, press [⏏ OPEN/CLOSE 1] – [⏏ OPEN/CLOSE 5], corresponding to the disc you are at.
The tray will close.

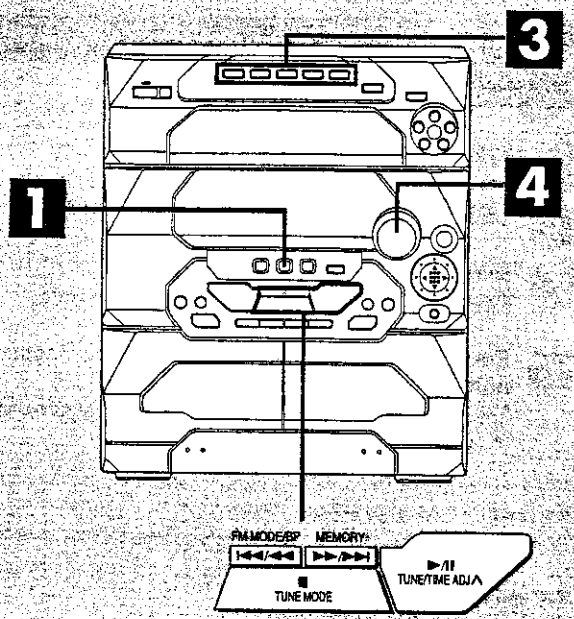
Disc indicators ([DISC 1] - [DISC 5])

Disc indicators will act as follows whether the tray is loaded or not.

Green	When selected (When in the playing position)
Lights off	In all other cases

To prevent damage

Always observe the following points.
- Load only 1 CD on the tray. A
- Load CDs as shown in figure B.
  The adapter is not needed with 8 cm CDs (singles).
- Set the system on a flat, level surface.
  Do not set it on top of magazines, inclined surfaces, etc.
- Do not move the system while tray is opening/closing, or when loaded.
  Always unload all CDs before moving the system.
- Do not put anything except CD in tray.
- Do not use cleaning CDs or CDs which are badly warped or cracked.
- Do not use CDs with poorly attached labels or stickers.
  Adhesive protruding from underneath stickers or left over from peeled off stickers can cause your stereo to malfunction.
- Do not use irregular shape CDs. C
- Do not disconnect the power cord from the household AC outlet during disc changing operation.



Sequential play

1 **Press [CD].**
The system will come on automatically.

2 **Insert CD in the tray.**
(For details, see page 14.)

3 **Press [DISC 1] – [DISC 5] to select the disc you want.**
(If the desired CD is indicated on the display panel, the same operation can be accomplished by pressing [▶/II].)
Play will start from the first track on the selected disc, and will continue until the last track of the final disc (see below) is played.

4 **Adjust the volume level.**

To stop the disc play
Press [■].

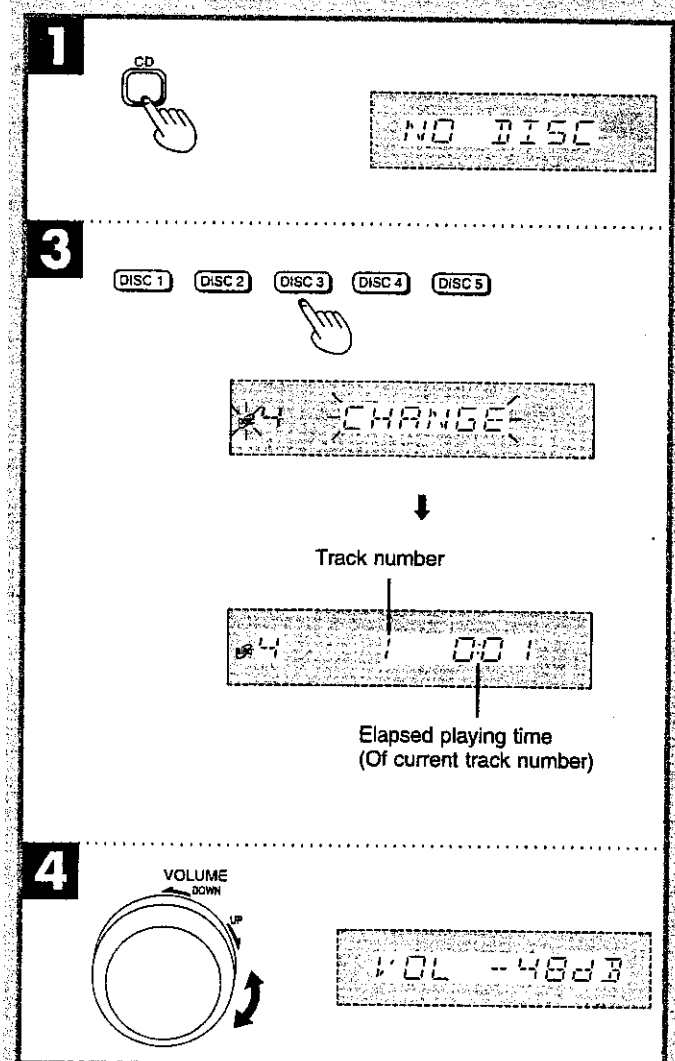
When " ⩾ " appears on the display A
It indicates there are 13 or more tracks on the disc in the playing position.

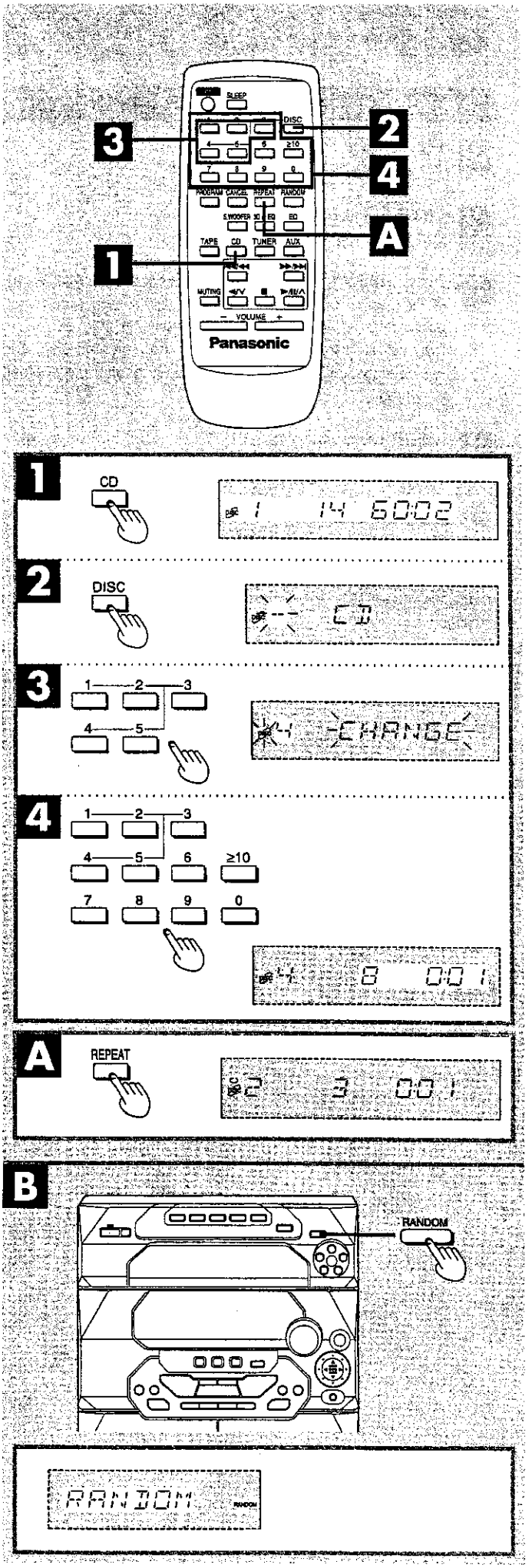
What is meant by "final disc"?
For example, if play starts from disc 4, disc 3 will be the "final disc".
Order of progression:
Disc 4→5→1→2→3

To pause	Press [▶/II] during playback. To resume playback, press [▶/II].
To search forward/ backward (Search)	Hold down [I◀◀/◀◀] (backward) or [▶▶/▶▶I] (forward) during playback or pause mode.
To skip forward/ backward	Press [I◀◀/◀◀] (backward) or [▶▶/▶▶I] (forward) during playback or pause mode.

Notes

- During random play (page 16), you cannot skip to tracks which have already been played.
- During program play (page 17) or random play, you can search forward or backward only within the current track.
- During program play, skipping is always in the programmed order, whether forward or backward.





Direct access play

by remote control only

1 **Press [CD].**

2 **Press [DISC].**

3 **(within 10 seconds or so)**
Press [1] – [5] to select the disc you want.

4 **Press the numeric button to select the desired track number.**
The CD will be played from the selected track to the last track of the final disc (page 15).

To select a two-digit track
Press [≥10] and then the two numbers you want within 10 seconds or so.
For example
Track no. 20: [≥10] → [2] → [0]
Track no. 35: [≥10] → [3] → [5]

Repeat play

by remote control only

Press [REPEAT] before or during play. A
All tracks on the loaded CDs are repeated.

To cancel repeat play
Press [REPEAT] once again.

To repeat your favourite tracks
1. Program the tracks you want (perform steps 1 ~ 6 on page 17).
2. Press [REPEAT] and make sure "↻" is displayed.
3. Press [▶/II/∧]. Playback will start.

To repeat just one track
Set the 1-TRACK mode (page 18), press [REPEAT] before or during playback, and make sure "↻" is displayed.

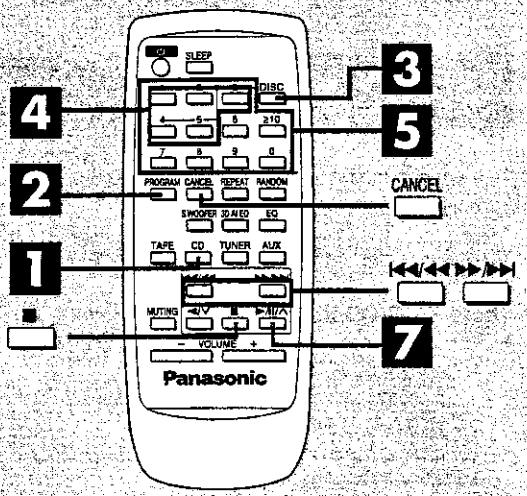
Random play

Press [RANDOM]. B
All tracks on the loaded CD will be played in random order. Playback will stop automatically when all tracks have been played.

To cancel random play
Press [RANDOM] once again.

Note

You can use random play with your program. Only the programmed tracks will be played, but in random order.



Program play

by remote control only

You can program up to 24 tracks.

1 **Press [CD].**
Ensure CD is stopped.

2 **Press [PROGRAM].**

3 **Press [DISC].**

4 (within 10 seconds or so)
Press [1] – [5] to select the disc you want.

5 **Press the numeric button to select the desired track.**

6 **Repeat steps 3 through 5 until you have programmed all the tracks you want.**

7 **Press [▶/II/∧].**
Play will start in the programmed sequence.

To cancel program play mode
Press [PROGRAM] in the stop mode.
Programmed contents will be saved in memory.
Pressing [■] will cancel program play, but it will also erase the entire program.

To select a two-digit track
Press [≥10] and then the two numbers you want.

When "CD FULL" appears A
The number of programmed tracks is limited to 24. No further tracks can be programmed.

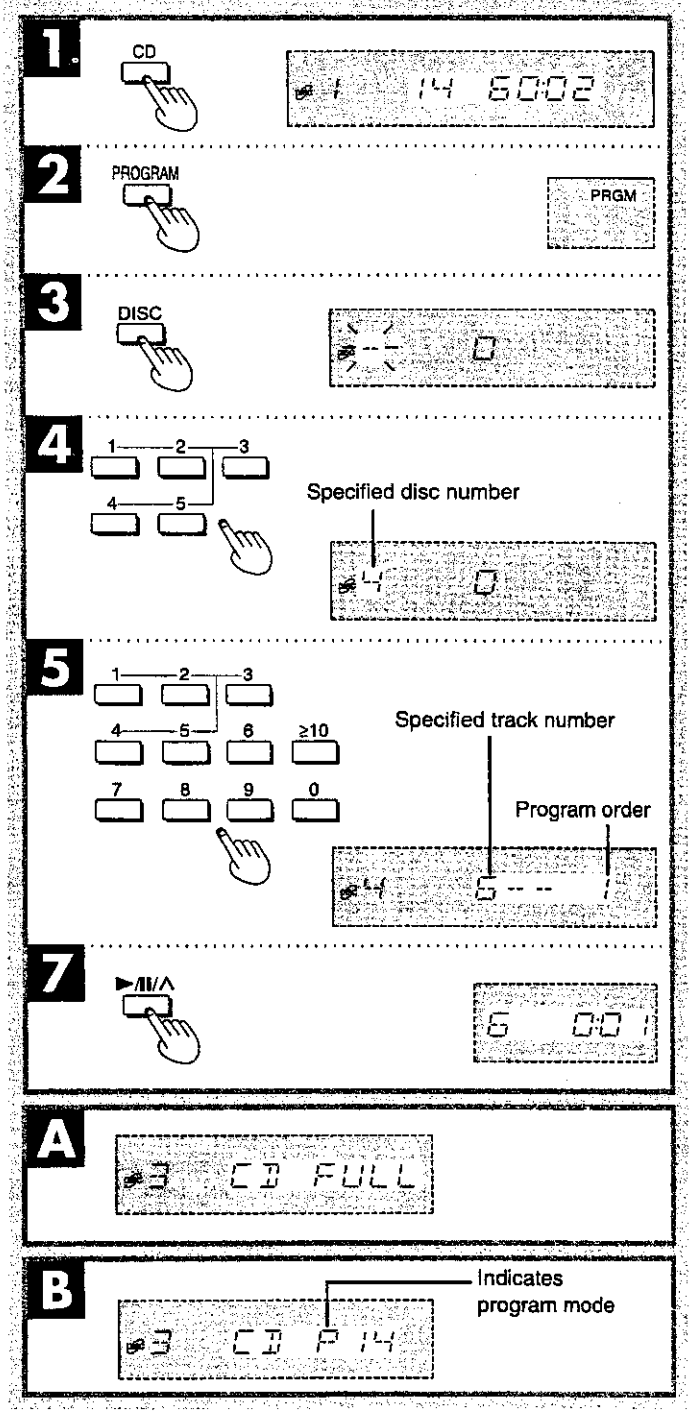
You can do the following during program mode B
- Check program contents.
  Press [I◀◀/◀◀] or [▶▶/▶▶I].
  Every time you press one of the buttons, the track and program No. are shown on the display.
- Add to the program.
  Repeat steps 3 through 5.
- Cancel entries.

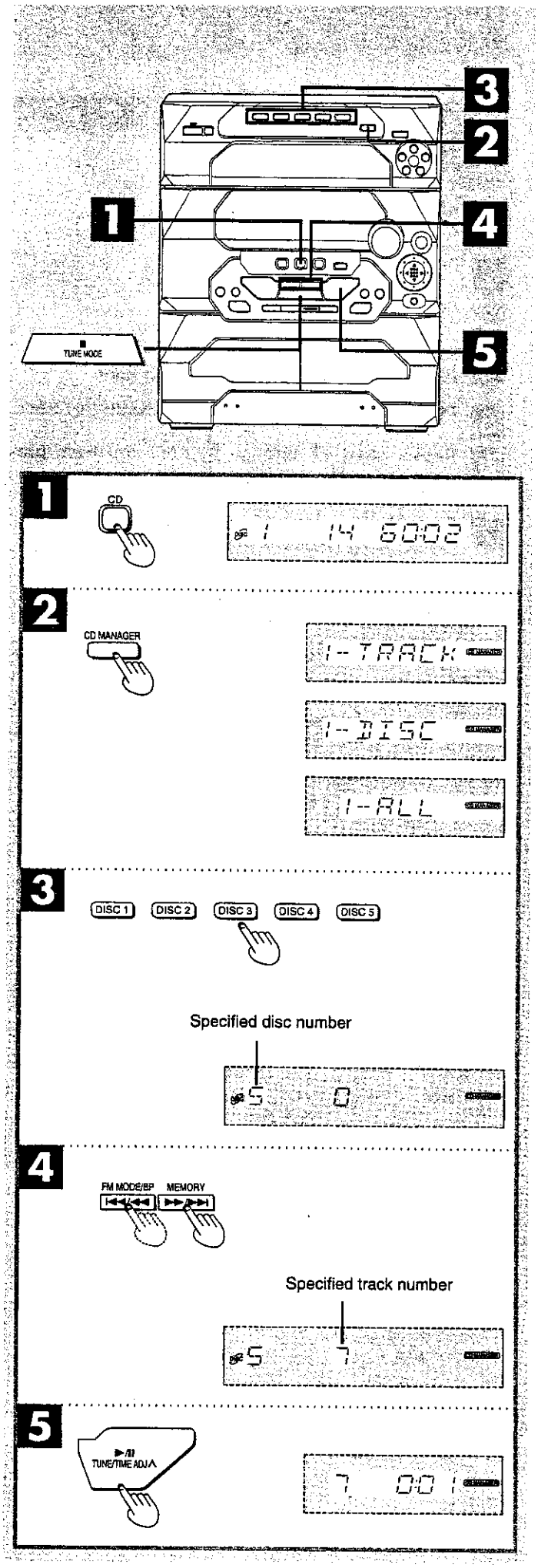
From the last programmed track	Press [CANCEL].
A specified track only	Select the track with [I◀◀/◀◀] or [▶▶/▶▶I], and press [CANCEL] within 3 seconds.
All tracks	Press [■].

Memory retention
Your program is retained in memory for about 2 weeks while the system is unplugged.

To replay your program
If you turned OFF your program with [PROGRAM], you can play it again as explained below.
1. Press [PROGRAM].
2. Press [▶/II/∧].

If you program a track not on your CDs
The track is initially programmed, but during program play, the player will skip that track and will continue playing from the next programmed item.





To listen to special CDs and tracks (CD Manager function)

This function makes it easier for you to select special CDs and tracks from amongst those loaded in the player.

You can use this function to make recordings as well.

There are 3 CD/track selection modes.

- For playing back 1 track only from all loaded CDs
  1-Track mode (1-TRACK)
- For playing back 1 CD only from all loaded CDs
  1-Disc mode (1-DISC)
- For playing back 1 track on all loaded CDs
  1-Track All-Disc mode (1-ALL)

1 Press [CD].
Ensure CD is stopped.

2 Press [CD MANAGER] to select the desired mode.
Every time you press the button:

1-TRACK → 1-DISC → 1-ALL
↑ NORMAL (OFF) ←

1-TRACK: Only one particular track is played.
1-DISC: The tracks on only one particular disc are played.
1-ALL: The same track numbers on each of the CDs are played in succession.
(NORMAL: The original display is restored in about 3 seconds.)

3 Press [DISC 1] – [DISC 5] to select the disc you want.
Note
This step is not required if 1-ALL was selected in step 2.

4 Press [|◄◄/◄◄] or [►►/►►|] to select the desired track.
Note
This step is not required if 1-DISC was selected in step 2.

5 Press [►/II].
The selected track will start.

To stop play
Press [■].

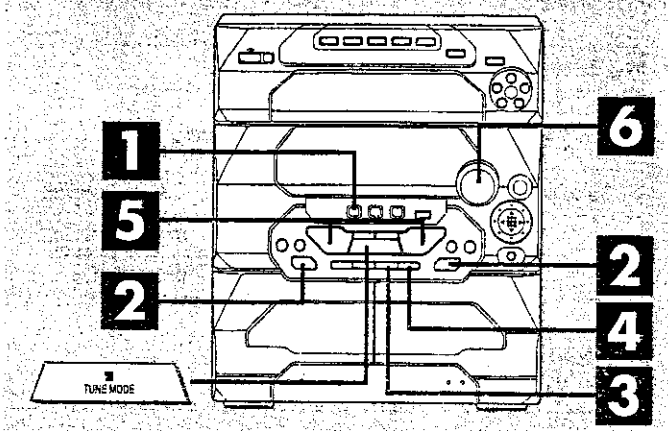
When playback ends
"NORMAL" will appear on the display for about 3 seconds, then the CD MANAGER function will turn OFF automatically.

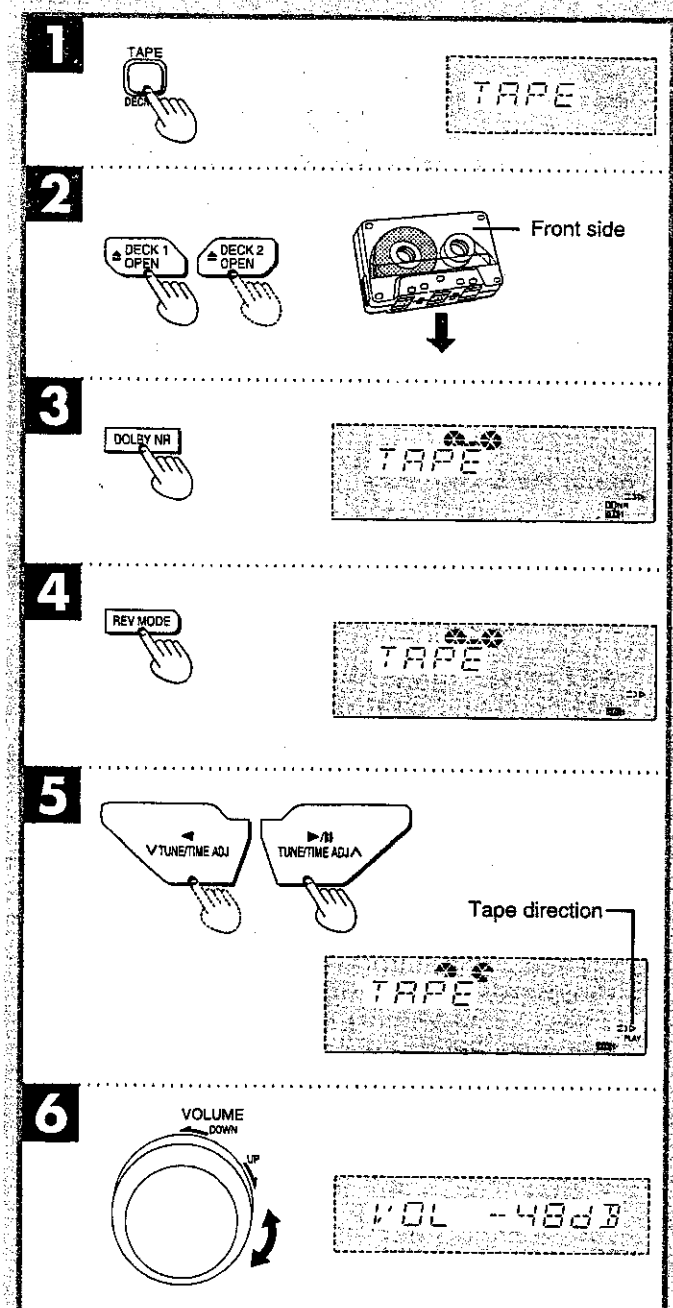
During play in the 1-ALL mode:

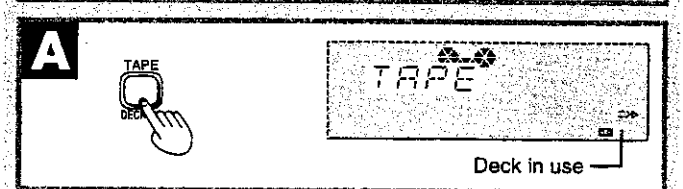
- It is not possible to skip back to a CD whose track has already been played.
- If a CD does not have the designated track number, it is skipped and play continues.

Note

You can use the repeat function (page 16) and random play (page 16) at the same time. However, in 1-TRACK mode, random play is not available.







Listening to tapes

Types of tapes which can be played correctly:
The unit automatically identifies the type of tape.

NORMAL POSITION/TYPE I	○
HIGH POSITION/TYPE II	○
METAL POSITION/TYPE IV	○

You can use either deck 1 or deck 2 for tape playback.

1 **Press [TAPE].**
The system will come on automatically.

2 **Press [≜ DECK 1 OPEN] or [≜ DECK 2 OPEN] and insert the tape.**
Insert the tape with the exposed tape facing down.
Close the holder by hand.

3 **Except for SC-AK17 model and SC-AK27 Australia and New Zealand model**

Press [DOLBY NR].
You have to turn Dolby NR ON/OFF according to the type of recording you made.
Every time you press the button: DD NR = (OFF)

4 **Press [REV MODE] to select the reverse mode.**
Every time you press the button:

⇄ → ⇉ → ⟲

⇄ : One side is played, then playback stops automatically.
⇉ : Both sides (front side → reverse side) are played one time each, then playback stops automatically.
⟲ : Both sides are played 8 times each, then playback stops automatically.

5 **Press [◀] or [▶] to start playback.**
▶ : The forward side (front side) will play.
◀ : The reverse side will play.

6 **Adjust the volume level.**

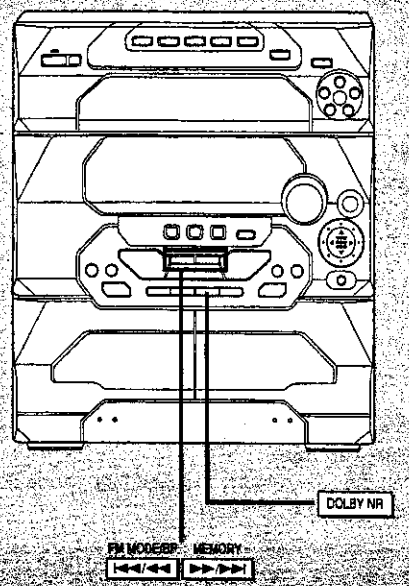
To stop tape playback
Press [■].

To change the deck to be used A
Press [TAPE DECK 1/2] to select the deck you want to use when you load cassettes into both decks.

To listen to 2 tapes consecutively
Load a tape into each deck and select "⟲". Both tapes will be played 8 times each.

Note

Playback is momentarily interrupted while playing back tapes, if you open the other deck.



Listening to tapes

To fast-forward or rewind the tape

Press [|◀◀/◀◀] or [▶▶/▶▶|] in the stop mode.

Tape direction	To rewind	To fast-forward
"▷"	[|◀◀/◀◀]	[▶▶/▶▶|]
"◁"	[▶▶/▶▶|]	[|◀◀/◀◀]

To find the beginning of a program (TPS: Tape Program Sensor)

Press [|◀◀/◀◀] or [▶▶/▶▶|] during play.

Tape direction	To play the current tune from the beginning	To play the next tune from the beginning
"▷"	[|◀◀/◀◀]	[▶▶/▶▶|]
"◁"	[▶▶/▶▶|]	[|◀◀/◀◀]

Notes

The TPS function searches for silent parts of about 4 seconds in length which are normally found between tunes. As a result, it may not function properly in the following cases:

- With short silent parts
- When noise occurs between tunes
- With silent parts found within tunes

About the Dolby noise-reduction system

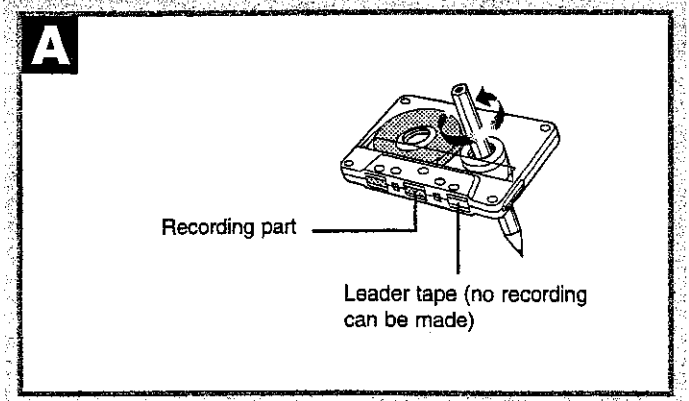
Except for SC-AK17 model and SC-AK27 Australia and New Zealand model

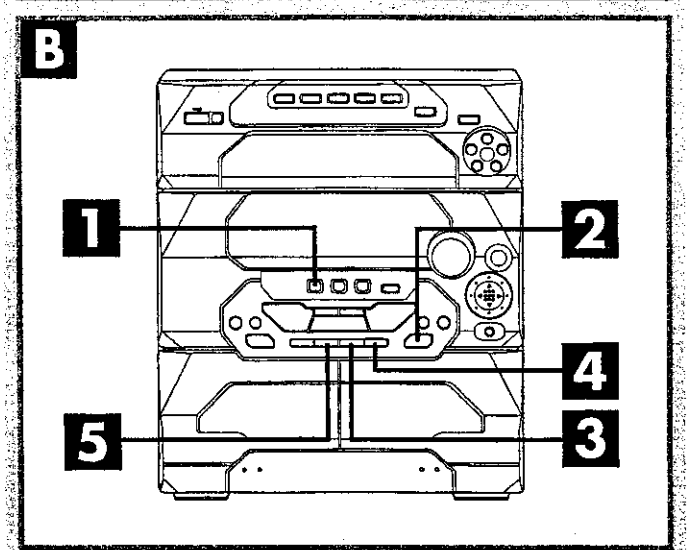
The Dolby noise-reduction system is designed to effectively reduce the annoying high-frequency "hissing" noise typical of cassette tapes. During recording, the system functions to increase the high-frequency sound level, and then, during playback, that same portion is weakened to bring it back to the previous level.
The Dolby NR effect is obtained by selecting the same type of Dolby during playback as was used during recording.

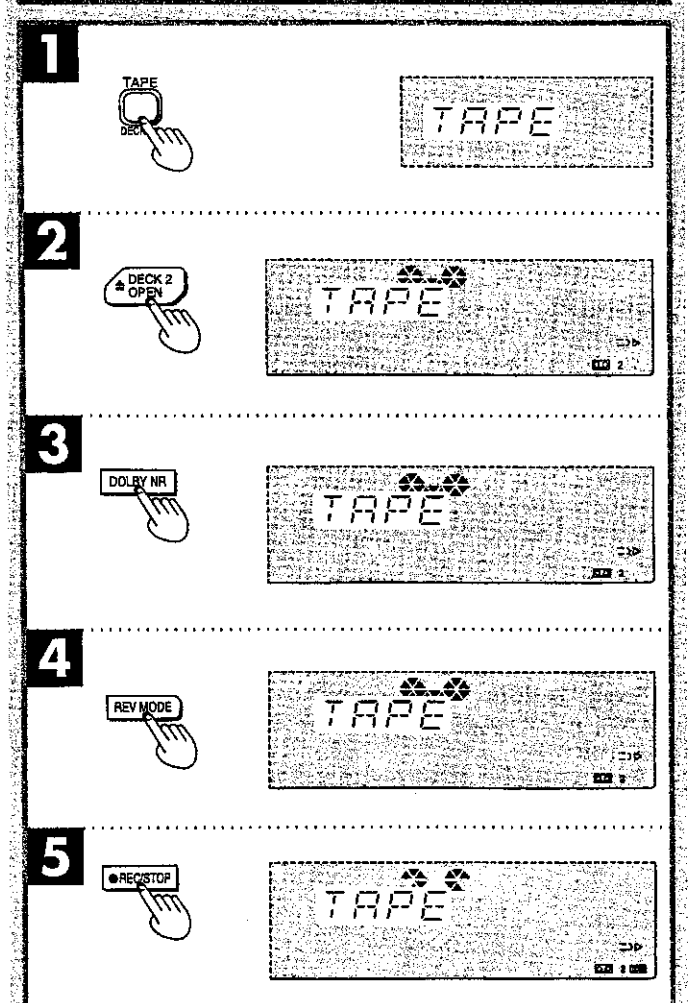
This unit includes the Dolby B NR-type.

Dolby B NR-type
Noise is reduced to about one-third.

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol ⧈ are trademarks of Dolby Laboratories Licensing Corporation.







Before recording (Deck 2 only)

Types of tapes which can be recorded correctly

The unit automatically identifies the type of tape.

NORMAL POSITION/TYPE I	○
HIGH POSITION/TYPE II	○
METAL POSITION/TYPE IV	×

This system cannot make a recording or erasing correctly, if metal position tapes are used.

To record from the beginning of the tape A

You cannot record on the leader part of the tape. Before recording, wind the tape past the leader to a point where recording can start immediately.

How volume, sound quality/field, super woofer(for SC-AK27) and V.BASS(for SC-AK17) affect recording

The tape you are recording is not affected whatsoever by changes in volume, sound quality/field, super woofer(for SC-AK27) or V.BASS(for SC-AK17).

- In recording, sound quality/field are set automatically to "FLAT".
- You can change volume, super woofer(for SC-AK27) and V.BASS(for SC-AK17) effect for the playback sound.

To erase a recorded sound B

1 **Press [TAPE].**

2 **Insert the recorded tape into deck 2.**

3 Except for SC-AK17 model and SC-AK27 Australia and New Zealand model

Press [DOLBY NR] so that the Dolby NR indicator goes off.

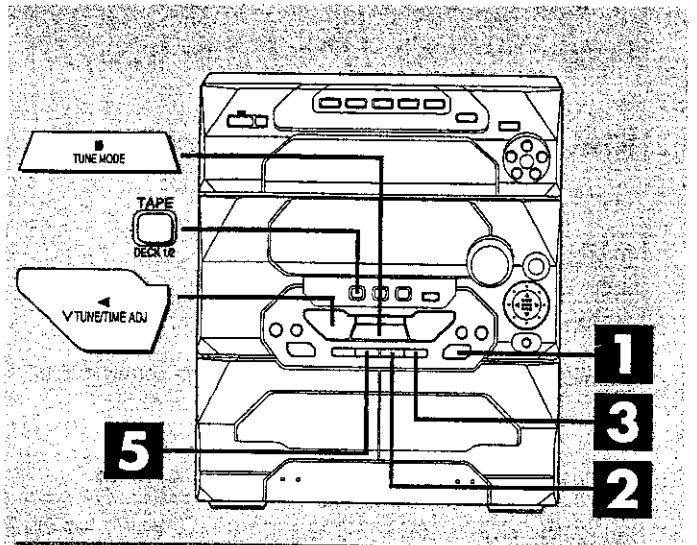
4 **Press [REV MODE] to select reverse mode.**

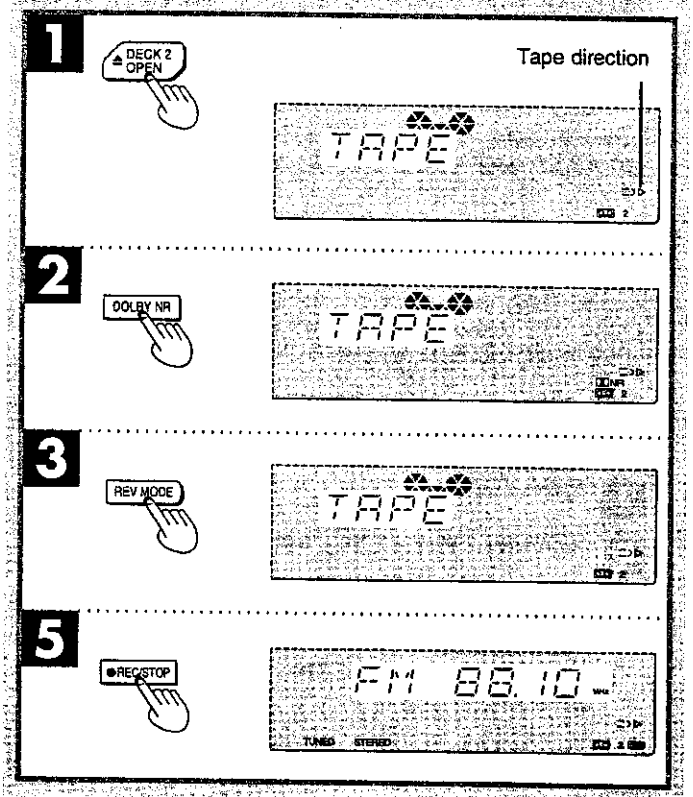
5 **Press [● REC/STOP].**

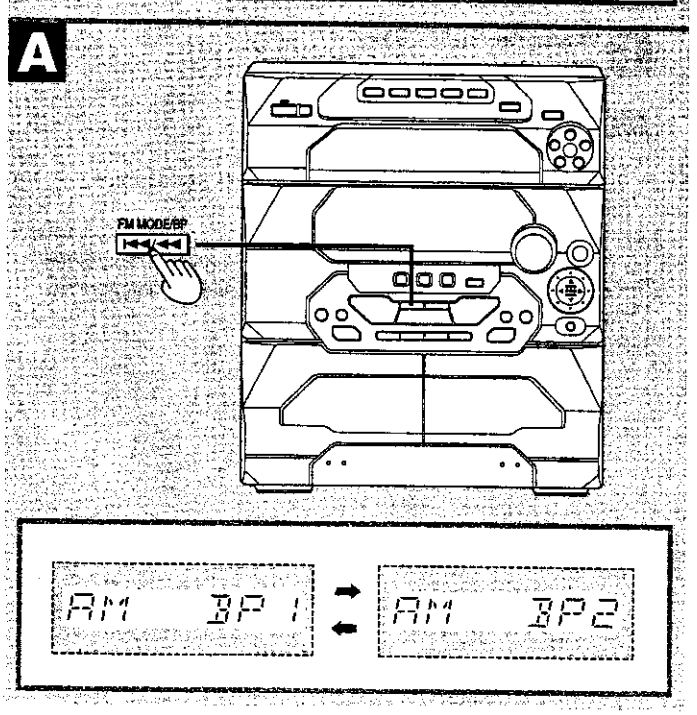
Notes

- You cannot open deck 1 while recording.
- You cannot fast-forward or rewind one deck while recording with the other.

Your attention is drawn to the fact that recording pre-recorded tapes or discs or other published or broadcast material may infringe copyright laws.







Recording from radio broadcasts

1 **Press [⏏ DECK 2 OPEN] and insert the tape.**
Close the holder by hand.
Tape direction is automatically set to "▷".

2 **Except for SC-AK17 model and SC-AK27 Australia and New Zealand model**

Press [DOLBY NR].
You have to turn Dolby NR ON/OFF according to the type of recording you want to make.
Every time you press the button: ◻◻ NR = (OFF)

3 **Press [REV MODE] to select the reverse mode.**
Every time you press the button:

⇄ → ⇉ → ⇆

⇄ : One side is recorded, then recording stops automatically.

⇉, ⇆ : Both sides (front side → reverse side) are recorded, then recording stops automatically.

4 **Select a radio station. Perform steps 1 through 3 on page 13.**

5 **Press [● REC/STOP] to start recording.**
If you selected "⇆" in step 3, the direction will automatically change to "⇉" when recording starts.

To stop recording
Press [● REC/STOP] again.
Recording can also be stopped by pressing [■].

To start recording on the reverse side
Load a tape and change the tape direction as following.
1. Press [TAPE DECK 1/2] and select tape deck 2.
2. Press [◀] and immediately thereafter [■]. The tape direction will be shown as "◁".

To record from a specific point on a tape
Before recording, advance the tape to the point from where you want to start recording.

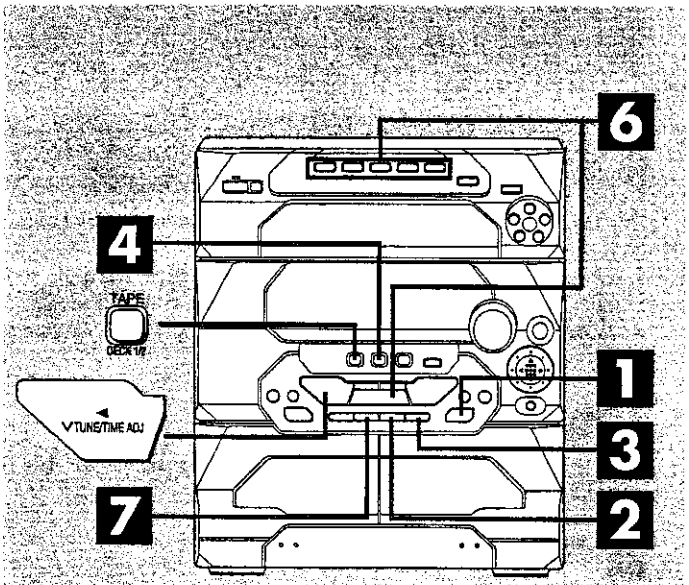
To cut an unnecessary part while recording
1. Press [● REC/STOP] during the unnecessary part. The cassette deck will go into the stop mode.
2. Press [● REC/STOP] to resume recording again. Recording will continue in the same direction as before.

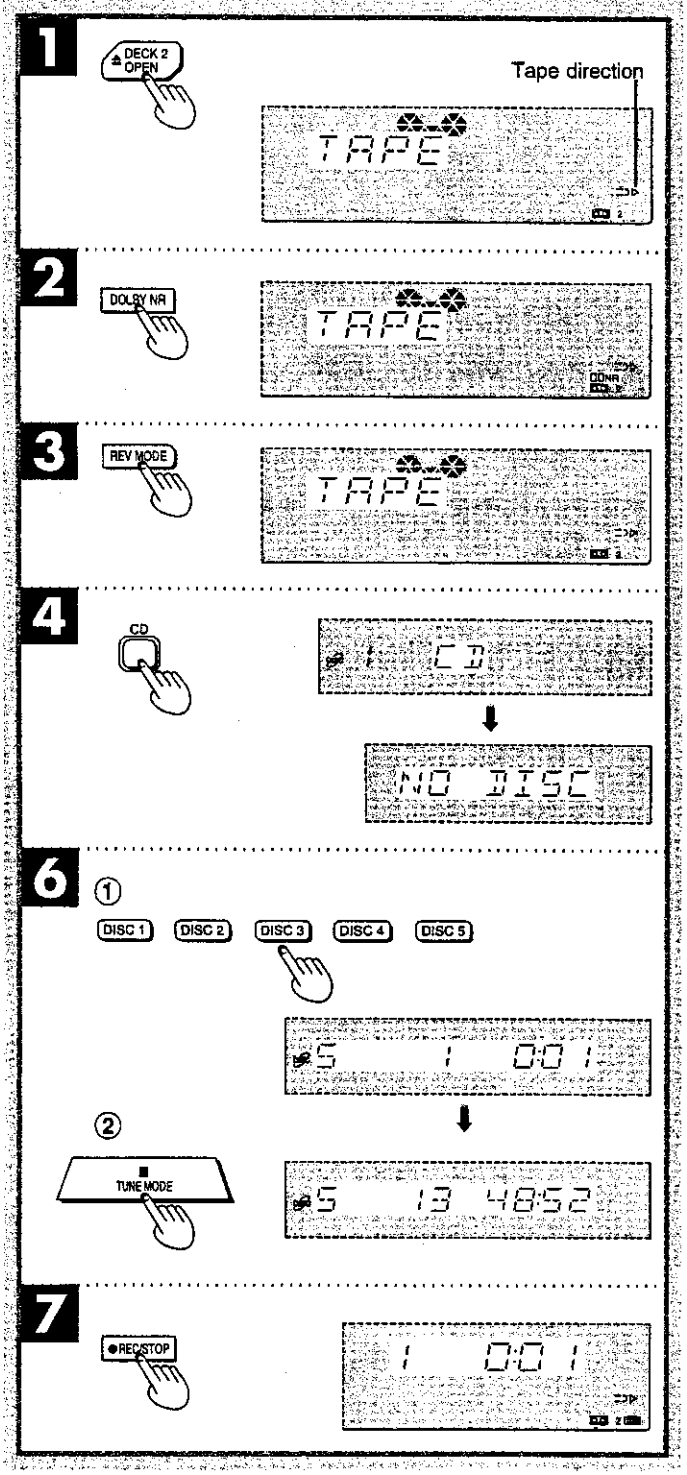
Note

When recording an AM broadcast, sound is momentarily interrupted when you start and stop the recording.

To reduce noise while AM recording (Beat proof function) A

Press [FM MODE/BP] while recording.
Each time you press the button, "BP1" and "BP2" will be displayed alternately.
Select the position where there is less noise.





Recording from compact discs

1 **Press [⏏ DECK 2 OPEN], and insert the tape.**
Close the holder by hand.
Tape direction is automatically set to "▷".

2 **Except for SC-AK17 model and SC-AK27 Australia and New Zealand model**

Press [DOLBY NR].
You have to turn Dolby NR ON/OFF according to the type of recording you want to make.
Every time you press the button: DD NR ⟶ (OFF)

3 **Press [REV MODE] to select the reverse mode.**
Every time you press the button:

⇄ → ⇉ → ↻

⇄ : One side is recorded, then recording stops automatically.

⇉, ↻ : Both sides (front side → reverse side) are recorded, then recording stops automatically.

4 **Press [CD].**

5 **Insert CD in the tray.**
(See page 14).

6 **Press [DISC 1] – [DISC 5] to select the disc you want.**
Pressing [■] will stop playback.

7 **Press [● REC/STOP] to start recording.**
- If you selected "↻" in step 3, the direction will automatically change to "⇉" when recording starts.
- The recording will proceed from the first track on the selected CD and will continue on through the last track of the final disc (page 15).
- The tape deck stops automatically when the CD is finished.

To stop recording
- To add a 4 second silent interval before stopping
  Press [■]. The CD will stop automatically too.
- To stop recording without a silent interval
  Press [● REC/STOP]. The CD will stop automatically too.

To start recording on the reverse side
Load a tape and change the tape direction as following.
1. Press [TAPE DECK 1/2] and select tape deck 2.
2. Press [◀] and immediately thereafter [■]. The tape direction will be shown as "◁".

To record from a specific point on a tape
Before recording, advance the tape to the point from where you want to start recording.

To record programmed tracks

1. After step 5, program the track you want (perform steps 2~6 on page 17).
2. Press [● REC/STOP] to start recording.

To record special CDs and tracks (CD Manager function)

This function makes it easier for you to select special CDs and tracks from amongst those loaded in the player.

- While recording, if a track is cut off in the middle at the end of the front side, it is re-recorded from the beginning, on the reverse side. A
- At the end of the reverse side recording stops and the current track will be interrupted.

Before recording

Prepare the tape you want to use. Perform steps 1 through 3 on page 23.

1 Press [CD].

2 Press [CD MANAGER] to select the desired mode.

Every time you press the button:

1-TRACK → 1-DISC → 1-ALL
↑ NORMAL ← (OFF)

1-TRACK: Only one particular track is recorded.
1-DISC: The tracks on only one particular disc are recorded.
1-ALL: The same track numbers on each of the CDs are recorded in succession.
(NORMAL: The original display is restored in about 3 seconds.)

3 Press [DISC 1] – [DISC 5] to select the disc you want.

Note
This step is not required if 1-ALL was selected in step 2.

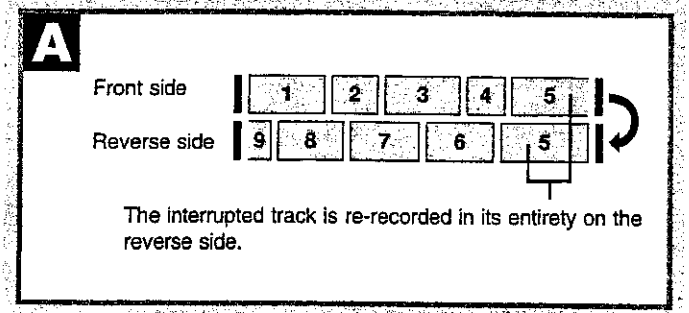
4 Press [|◀◀/◀◀] or [▶▶/▶▶|] to select the desired track.

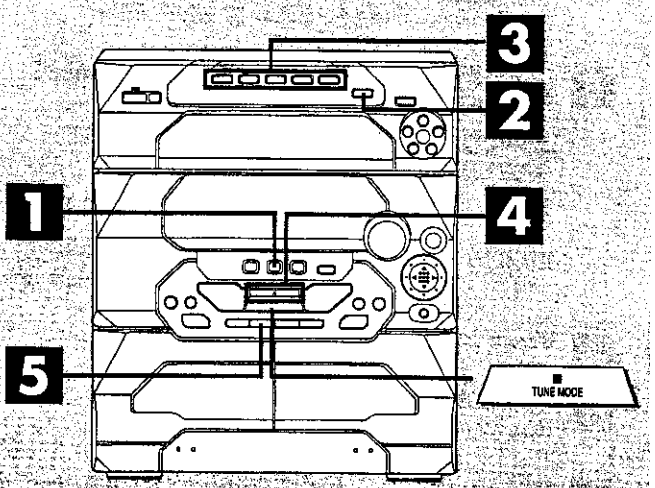
Note
This step is not required if 1-DISC was selected in step 2.

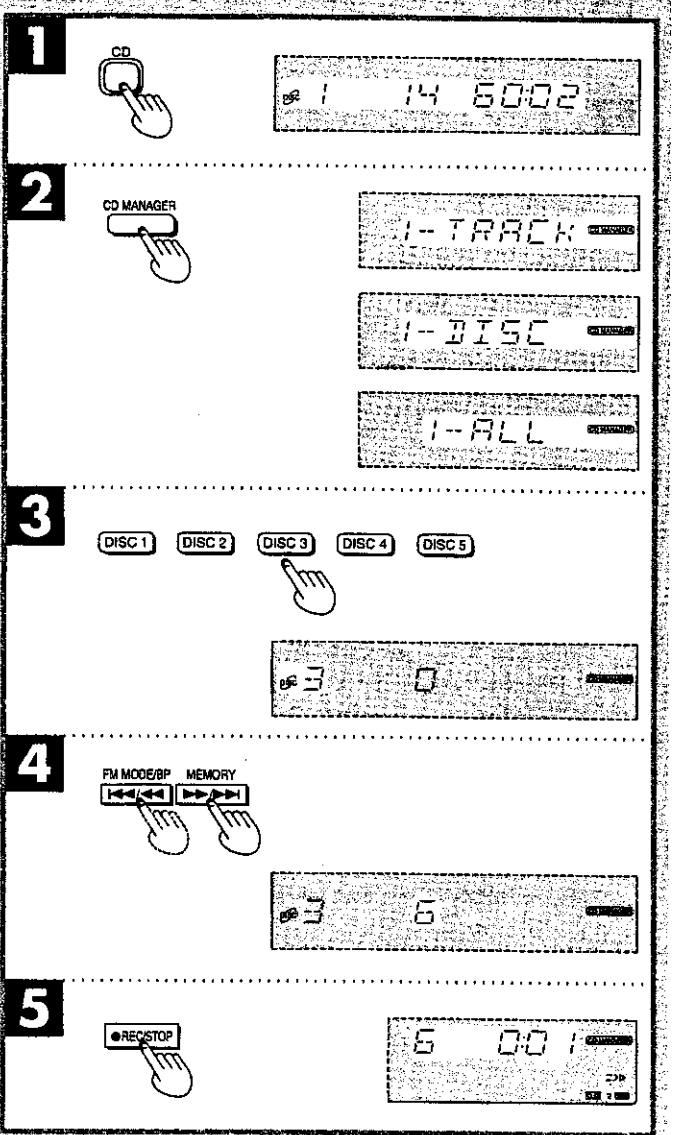
5 Press [● REC/STOP] to start recording.

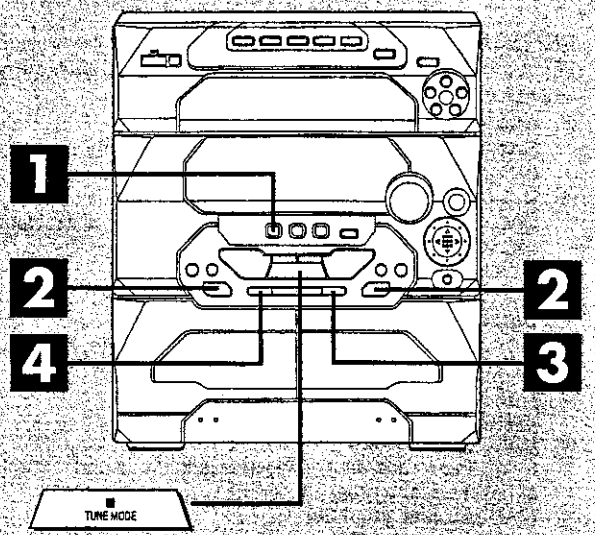
To stop recording

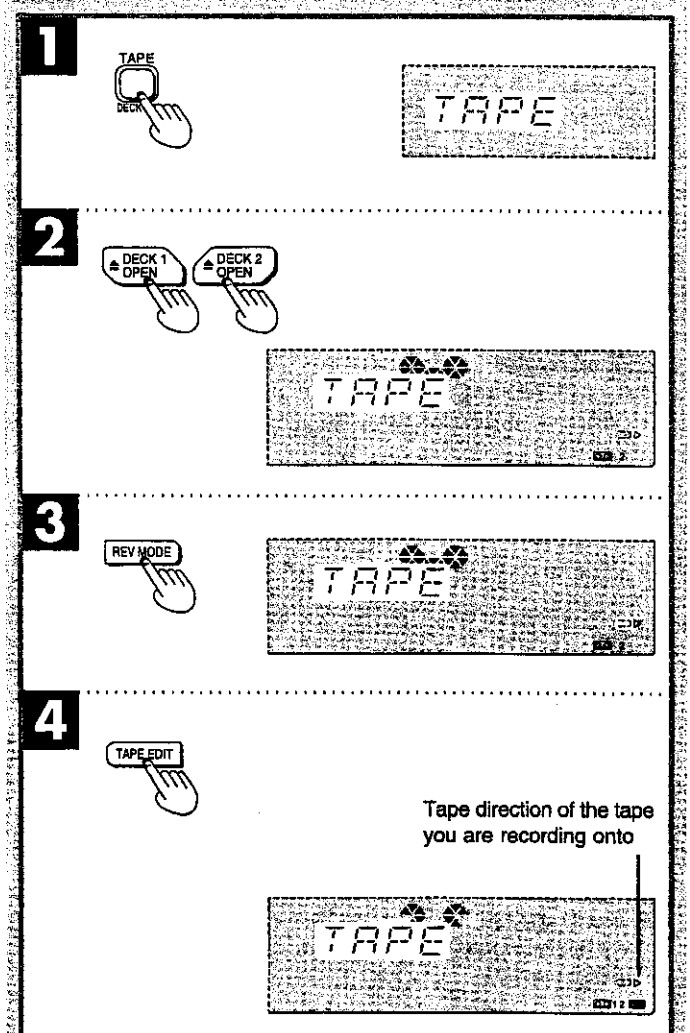
- To add a 4 second silent interval before stopping
  Press [■]. The CD will automatically stop too.
- To stop recording without a silent interval
  Press [● REC/STOP]. The CD will stop automatically too.











Tape-to-tape recording

The recording level and the Dolby effect (except for SC-AK17 models and SC-AK27 Australia and New Zealand model) will be recorded as they are on the tape being played back.

1 **Press [TAPE].**

2 **Press [≜ OPEN] on both decks and insert the tapes.**
For playback: Into deck 1
For recording: Into deck 2
Close the holders by hand.
Tape direction is automatically set to "▷".

3 **Press [REV MODE] to select the reverse mode.**
Every time you press the button:

⇄ → ⇉ → ⟳

⇄ : One side is recorded, then recording stops automatically.
⇉, ⟳ : Both sides (front side → reverse side) are recorded, then recording stops automatically.

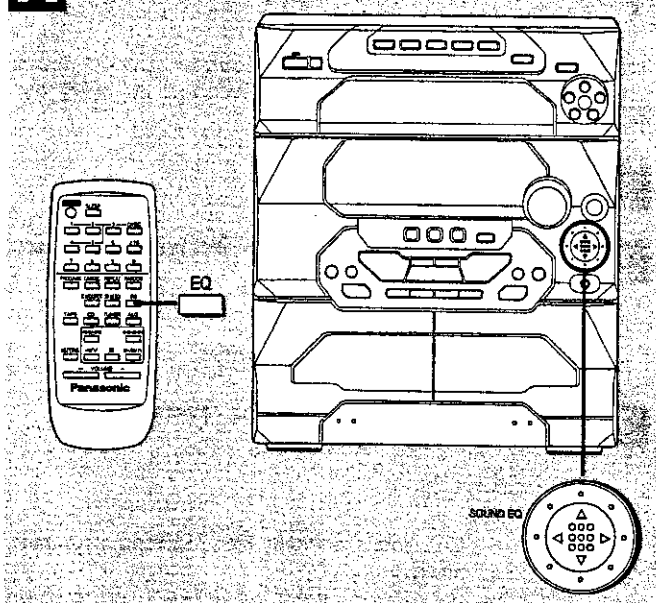
4 **Press [TAPE EDIT] to start recording.**
- If you selected "⟳" in step **3**, the direction will automatically change to "⇉" when recording starts.

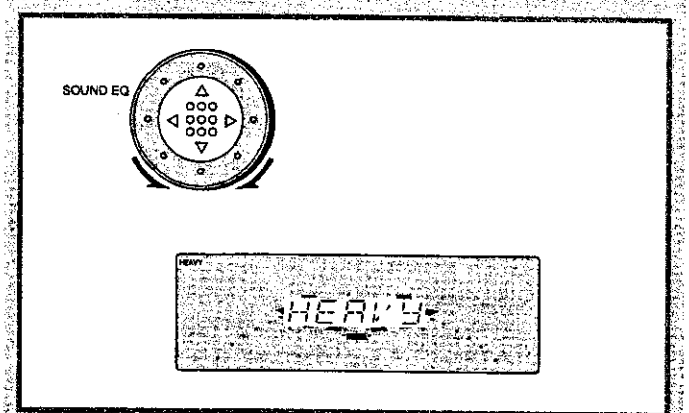
To stop recording:
Press [■].
Both decks will stop.

To start recording on the reverse side
Load a tape and change the tape direction as following.
1. Press [TAPE DECK 1/2] and select tape deck 2.
2. Press [◀] and immediately thereafter [■]. The tape direction will be shown as "◁".

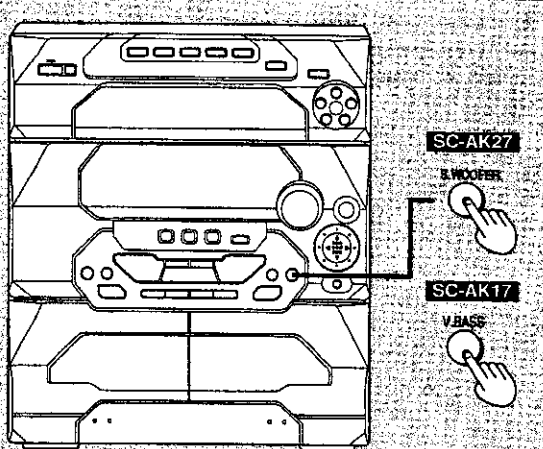
To record from a specific point on a tape
Before recording, advance the tape to the point from where you want to start recording.

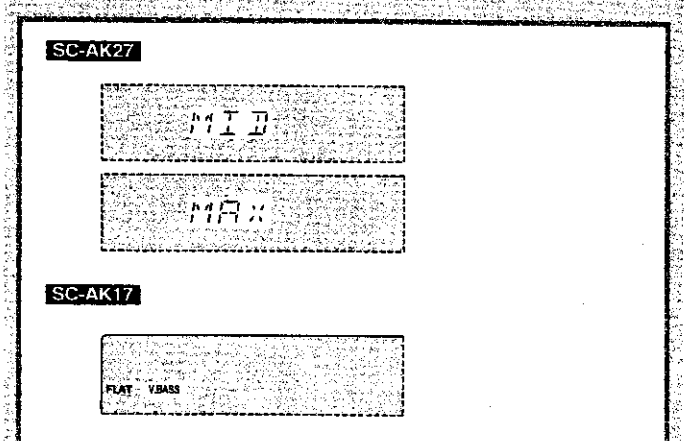
A





B





Using the built-in sound quality/ sound field settings A

Dial [SOUND EQ] to select the sound quality or sound field.
When it is turned clockwise, the settings are selected in the following sequence.

① **HEAVY (sound quality)**
Select this when playing rock or other kinds of music that sound better with an added punch.
② **CLEAR (sound quality)**
Select this for jazz or other kinds of music for which clarity in the treble range is desired.
③ **SOFT (sound quality)**
Select this when listening to background music.
④ **DISCO (sound field)**
Select this to produce sound with the same kind of lengthy reverberations heard at a disco.
⑤ **LIVE (sound field)**
Select this to make vocals more alive.
⑥ **HALL (sound field)**
Select this to add an expansiveness to the sound to produce the atmosphere of a great concert hall.
⑦ **MANUAL (see page 28)**
⑧ **AI EQ (see page 27)**

The original display is restored on the display panel in about 5 seconds. The SOUND EQ lamp lights more brightly, and "FLAT" is cleared.

To release the equalizer
Dial [SOUND EQ] to display "FLAT".

When using the remote control to perform the operations described above
Press [EQ].

Boosting the super woofer B

SC-AK27 only

Press [S.WOOFER].

- When listening to the sound through the speakers

  MID (medium) → MAX (high) → Light off (OFF)

- When listening to the sound through the headphones

  Light on (ON) ⇌ Light off (OFF)

Note

All recordings are performed at the flat setting even if an alternative sound quality/sound field setting has been selected and the super woofer effect is set to ON.

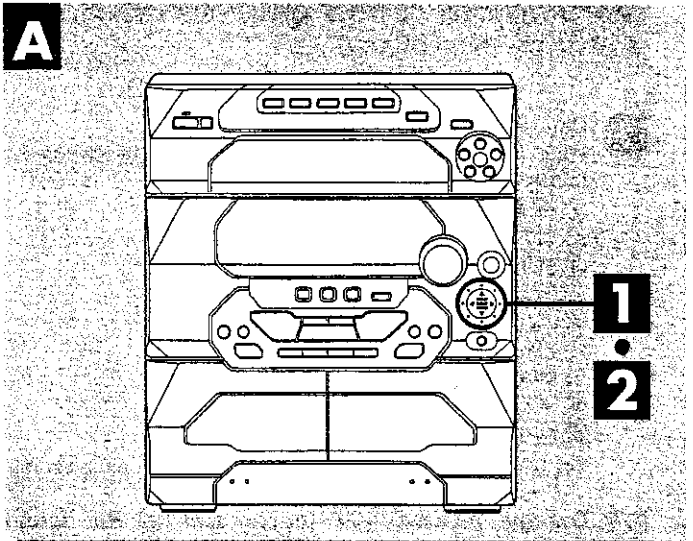
Adding bass B

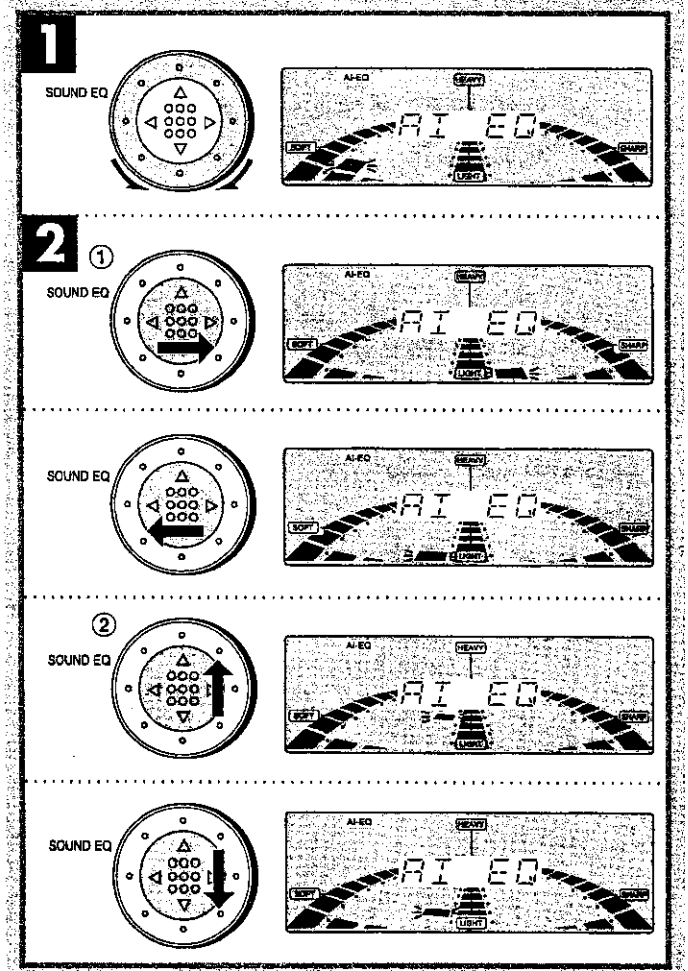
SC-AK17 only

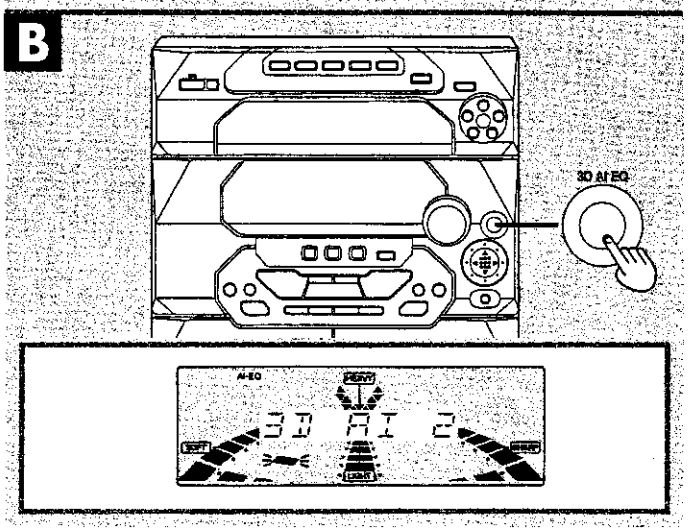
Press [V.BASS].
Press the button again to cancel.
"V.BASS" goes out.

Note

You cannot record V.BASS effect, but you can use it for playback sound.







Varying the sound quality with the acoustic image (AI) equalizer A

The AI equalizer uses the SOFT, SHARP, HEAVY and LIGHT sound quality coordinates to achieve subtle sound quality settings with ease.

1 Dial [SOUND EQ] to display "AI EQ".

When it is turned clockwise, the settings are selected in the following sequence.

① HEAVY ←
② CLEAR
③ SOFT
④ DISCO
⑤ LIVE
⑥ HALL
⑦ MANUAL
⑧ **AI EQ**
⑨ FLAT ←

The SOUND EQ lamp lights more brightly, and "FLAT" is cleared.

2 Operate [SOUND EQ] jogcap and set the sound quality as desired.

① ← → direction: SOFT–SHARP setting
② ↓ ↑ direction: LIGHT–HEAVY setting

Repeat steps ① and ② to set the desired sound quality.
The original display is restored on the display panel in about 5 seconds.

To release the equalizer
Dial [SOUND EQ] to display "FLAT".

Notes

- The sound quality setting is stored automatically. It is recalled when "AI EQ" is next selected.
- All recordings are performed at the flat setting even if an alternative sound quality setting has been selected.

Selecting the 3D acoustic image (3D AI) equalizer B

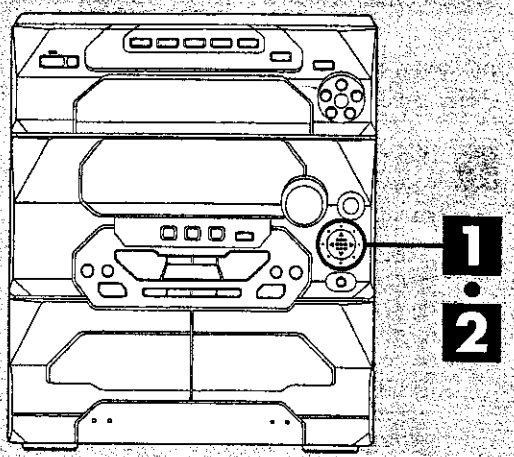
Press [3D AI EQ].

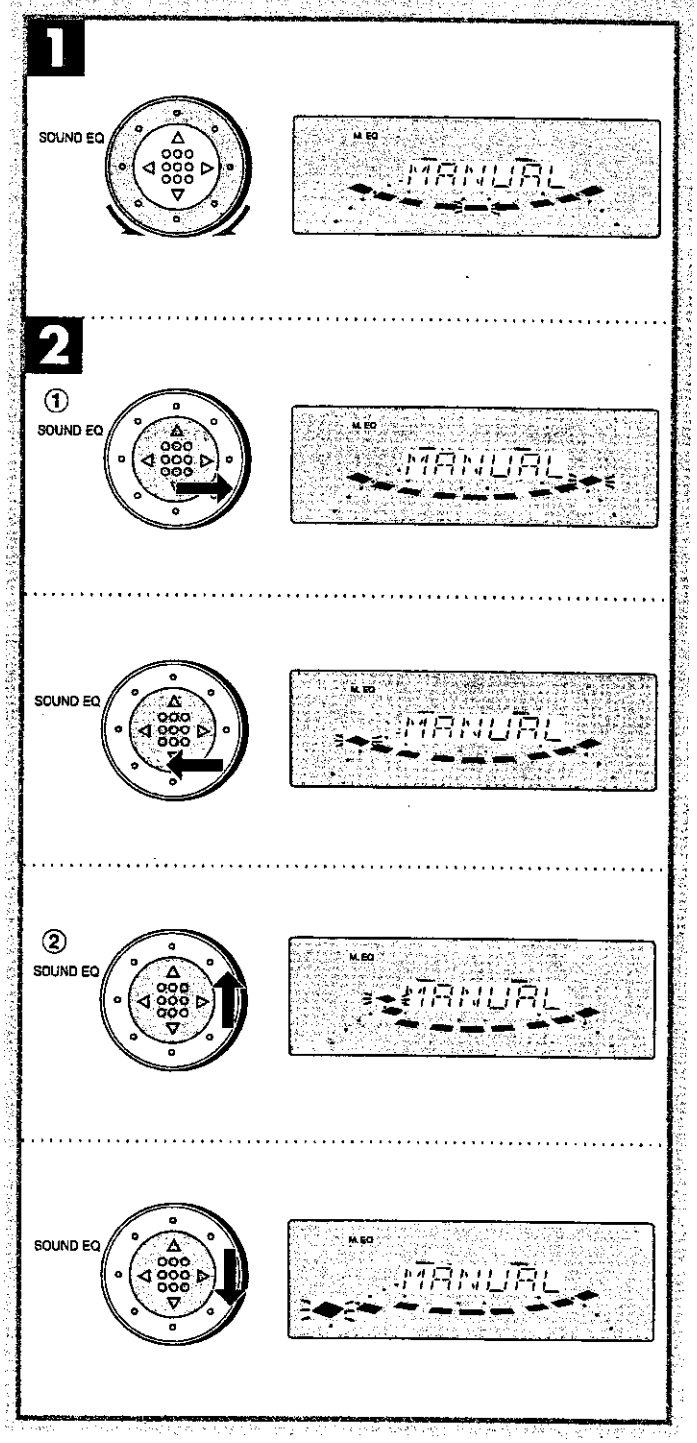
Every time you press the button:

3D AI 1 ⟶ 3D AI 2
↑ AI EQ (Light off) ←

Note

- If the equalizer is not set at AI mode, it will be switched to AI mode once [3D AI EQ] is pressed.
- All recordings are performed at the flat setting even if an alternative sound quality setting has been selected.





Varying the sound quality with the manual equalizer

1 Dial [SOUND EQ] to display "MANUAL".

When it is turned clockwise, the settings are selected in the following sequence.

① HEAVY ←
② CLEAR
③ SOFT
④ DISCO
⑤ LIVE
⑥ HALL
⑦ **MANUAL**
⑧ AI EQ
⑨ FLAT ←

The SOUND EQ lamp lights more brightly, and "FLAT" is cleared.

2 Operate [SOUND EQ] jogcap and set the sound quality as desired.

① ← → direction: For selecting the range of the sound to be adjusted

Characteristics of each sound range

Under 100 Hz:	Super woofer range
Around 330 Hz:	Bass to midrange
Around 1 kHz:	Midrange
Around 3.3 kHz:	Midrange to treble
Above 10 kHz:	Treble

② ↓ ↑ direction: For adjusting the level (7 steps)

When the level is in the center, the dot flashes rapidly.

Repeat steps ① and ② to set the desired sound quality.

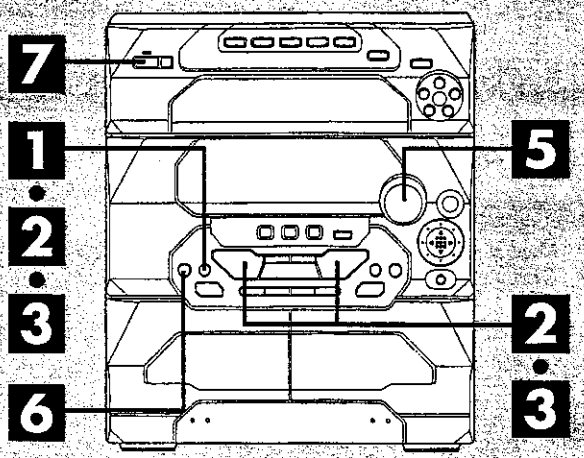
The original display is restored on the display panel in about 5 seconds.

To release the equalizer

Dial [SOUND EQ] to display "FLAT".

Notes

- The sound quality setting is stored automatically. It is recalled when "MANUAL" is next selected.
- All recordings are performed at the flat setting even if an alternative sound quality setting has been selected.



Using the play timer

Select this timer when you want to use the timer as an alarm clock. You can wake up listening to music (CD, tuner, tape or aux) at a desired volume level and time.

Preparations

- Make sure that you have completed "Setting the time" on page 11.
- Switch on the system.

The figure shows how to set the play timer to play a CD from 6:30 to 7:40.

1 **Press [CLOCK/TIMER] to select "⏲PLAY".**
Every time you press the button:
CLOCK → ⏲PLAY → ⏲REC
↳ Previous display ↵

2 **"ON" time setting**

(Within 8 seconds or so)
① Press [∨] or [∧] to select the starting time.
② Press [CLOCK/TIMER].

3 **"OFF" time setting**

① Press [∨] or [∧] to select the ending time.
② Press [CLOCK/TIMER].

4 **Source selection**

Select the desired source and then prepare for playing.

To play CD(s)
Press [CD] and insert CD(s).
If more than 1 CD is loaded
Press [DISC 1]-[DISC 5] to select the CD you want to hear first and press [■].

Note
Disc selection does not become part of the timer memory.

To play tape(s)
Press [TAPE] and insert tape(s).
If tapes are loaded in both decks, playback will start from deck 2.

To play the radio
Press [TUNER] and tune in the desired station.

To play a unit connected to the "AUX" terminals
Press [AUX].

5 **Play volume setting**

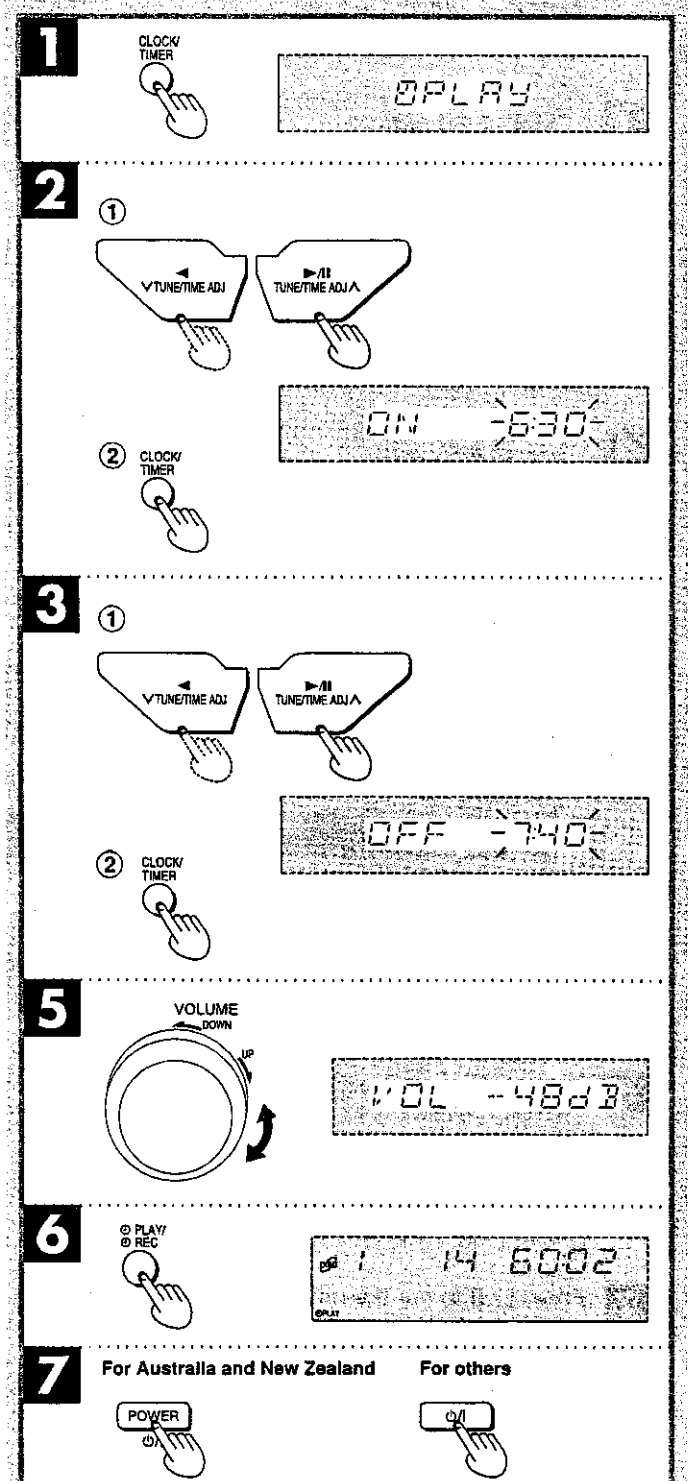
Set the playback volume.

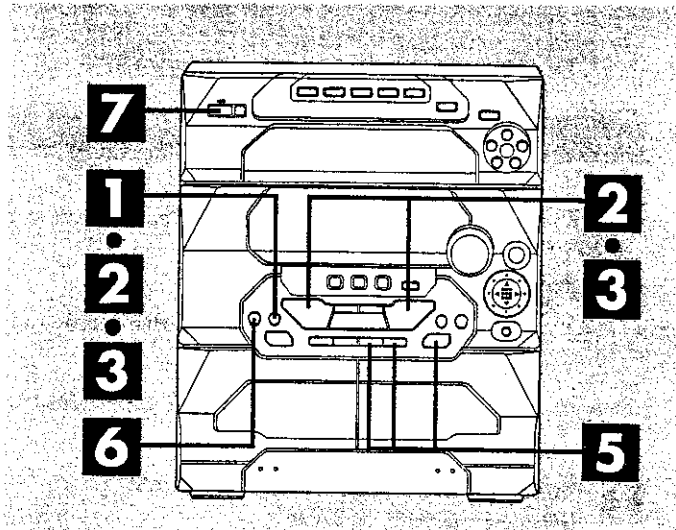
6 **Press [⏲PLAY/⏲REC] to select "⏲PLAY".**
Every time you press the button:
⏲PLAY → ⏲REC
↳ (OFF) ↵

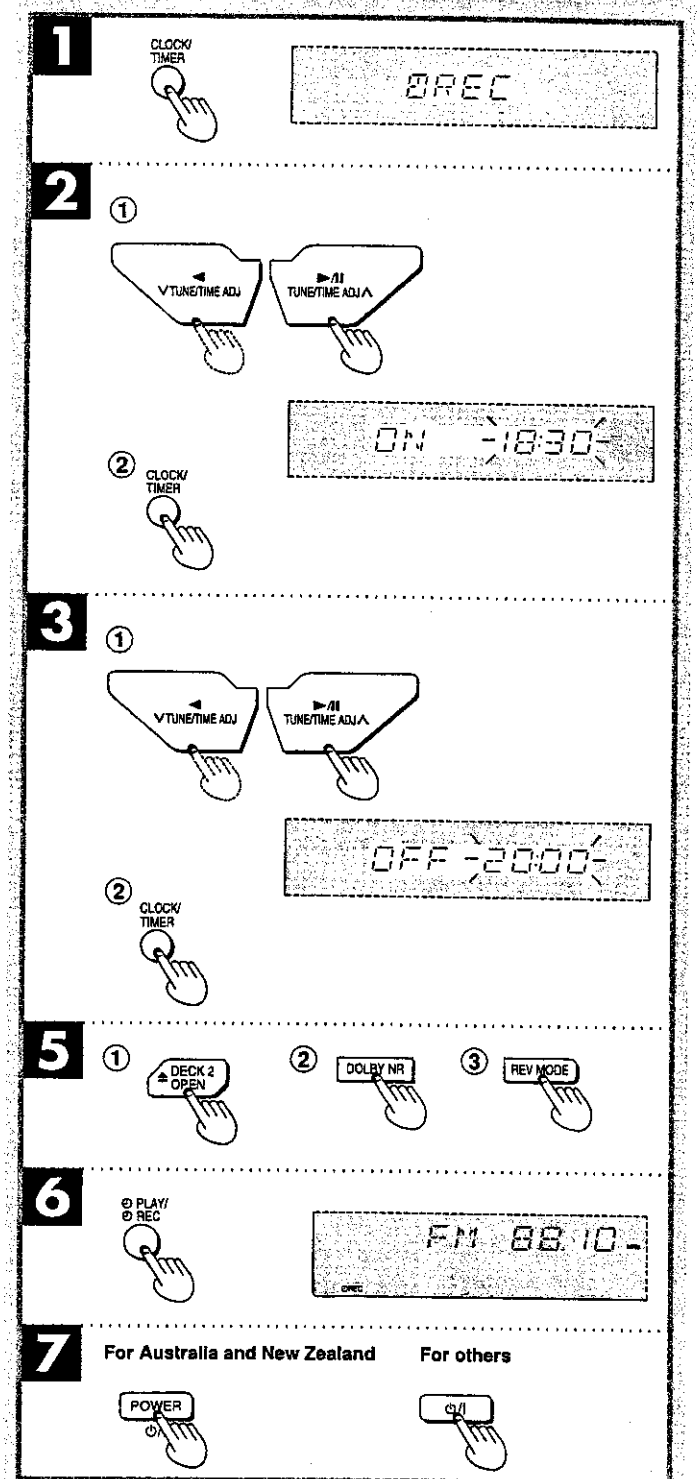
[⏲PLAY/⏲REC] indicator lights up.

7 **Press [⏻/I] to put the unit on standby before your timer start time.**

The timer play will start at the preset time with volume increasing gradually up to the volume level you preset.







Using the record timer

Select this timer when you want to use the timer to record a midnight program or while you are out.

Preparations

- Make sure that you have completed "Setting the time" on page 11.
- Switch on the system.

The figure shows how to set the record timer for recording FM broadcasts from 18:30 to 20:00.

1 **Press [CLOCK/TIMER] to select "⏲REC".**

Every time you press the button:

CLOCK → ⏲PLAY → ⏲REC
↑ Previous display ←

2 **"ON" time setting**

(Within 8 seconds or so)

① Press [∨] or [∧] to select the starting time.
② Press [CLOCK/TIMER].

3 **"OFF" time setting**

① Press [∨] or [∧] to select the ending time.
② Press [CLOCK/TIMER].

4 **Source selection**

Select the desired source and then prepare for recording.

To record from the radio
Press [TUNER] to select the band and tune in the desired station.
To record from a unit connected to the "AUX" terminals
Press [AUX].

5 **Prepare for recording.**

① Insert a tape into deck 2 with the side on which the recording will start facing you.
② Except for SC-AK17 model and SC-AK27 Australia and New Zealand model
Select [DOLBY NR].
③ Select the reverse mode.

Note

Dolby NR and reverse mode do not become part of the timer memory.

6 **Press [⏲PLAY/⏲REC] to select "⏲REC".**

Every time you press the button:

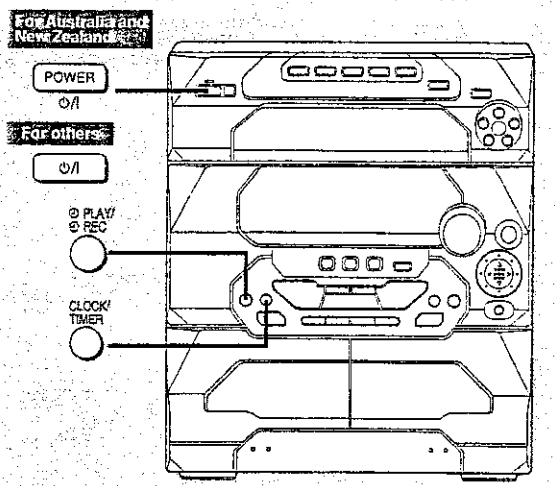
⏲PLAY → ⏲REC
↑ (OFF) ←

[⏲PLAY/⏲REC] indicator lights up.

7 **Press [⏻/I] to put the unit on standby at least 2 minutes before your timer starting time.**

About 30 seconds before the set time, the recording will start with all sound muted automatically.

A



Using the play/record timer

A

To switch the timer OFF

Press [⏲PLAY/⏲REC] and check [⏲PLAY/⏲REC] indicator lights off.

If you set the timer incorrectly

Repeat the procedure from step 1.

To check settings

Press [CLOCK/TIMER] to select "⏲PLAY" (for play timer) or "⏲REC" (for record timer).

Two seconds later, the display will change in the following order:

- For play timer
  - ① Play start time
  - ② Play end time
  - ③ Play source and playback volume
- For record timer
  - ① Recording start time
  - ② Recording end time
  - ③ Recording source

You can check the settings even when the system is OFF.

To enjoy the desired source after the timer setting is completed

The volume level (for play timer) and music source are stored in the timer memory and the timer will start in these preset conditions. However, the Disc numbers, Dolby NR and reverse mode do not get stored in the timer memory.

1. After step 6, start playing the desired source.
2. Reset the Disc numbers, Dolby NR and reverse mode if you have changed any of them, confirm that a Disc or cassette is inserted, then press [⏻/ I] to put the unit on standby.

Turning the timer ON/OFF

As long as [⏲PLAY/⏲REC] indicator lights up, the timer will come ON everyday as set.

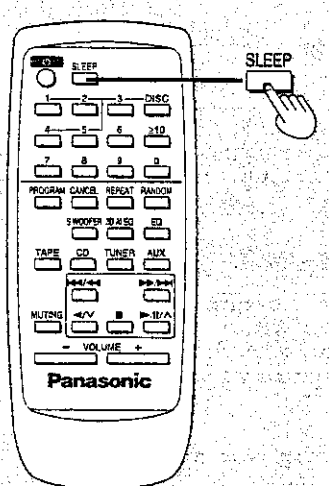
You can turn the timer ON/OFF by pressing [⏲PLAY/⏲REC] while the system is OFF.

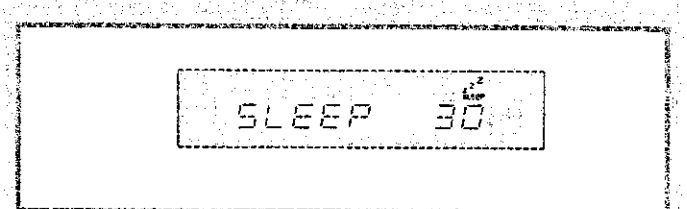
Remember that when [⏲PLAY/⏲REC] indicator lights up, the timer is ON. When lights off, the timer is OFF.

Note

- If the system is on, the timer will not function. The system must be in the standby mode.
- If you switch the system to the standby mode while the play/record timer is functioning, the OFF time setting will not be activated.
- If AUX is selected as the source, when the timer comes ON, the system will turn ON and will engage "AUX" as the source. If you want to playback or record from a connected component, set the component's timer to the same time. (See the instruction manual that came with the component.)
- The play timer cannot be used in combination with the record timer.

B





Using the sleep timer

B

This timer turns your system OFF at the set time (Max. 2 hours, settable at 30-minute interval). It lets you fall asleep listening to music.

by remote control only

Preparation

Switch on the system.

The figure shows how to set the system to standby mode after 30 minutes.

While enjoying the desired source:

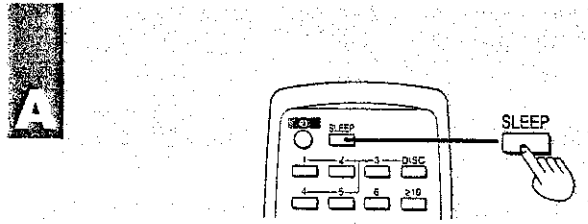
Press [SLEEP] to select the desired time.

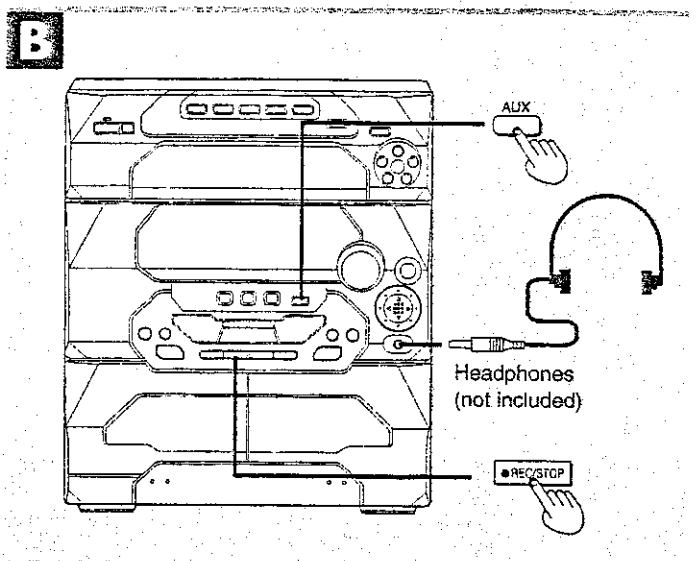
Every time you press the button:

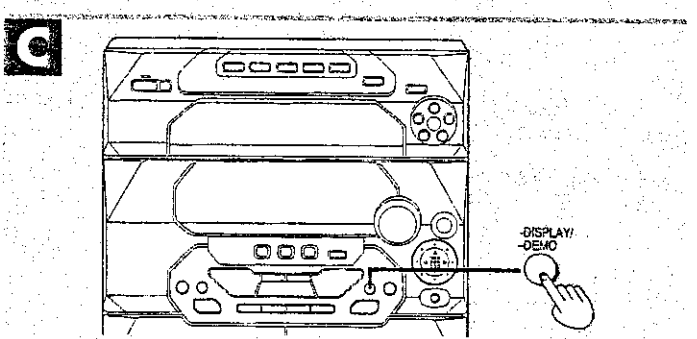
30 → 60 → 90 → 120 → OFF

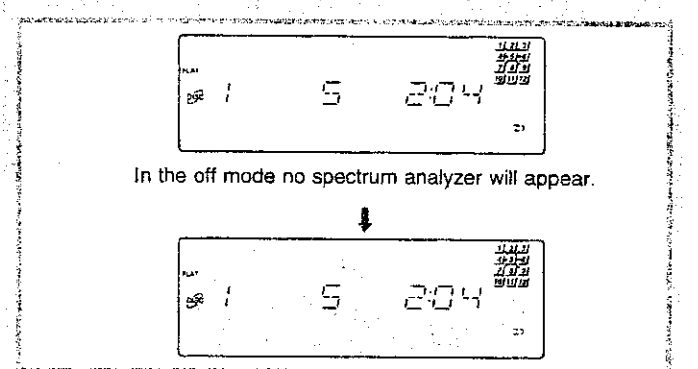
The system is turned off after the set time has elapsed.

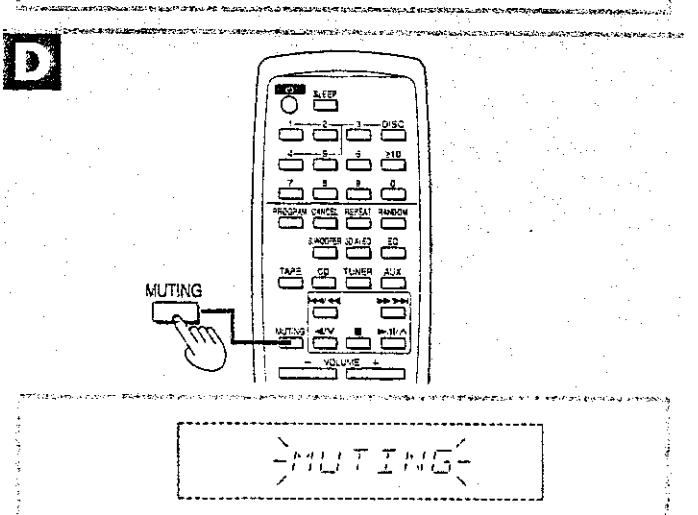
(Continued on next page)











Using the sleep timer

To cancel the sleep timer: A
Press [SLEEP] to select "OFF".

To confirm the remaining time:
(only while system is ON)
Press [SLEEP].

To change the time remaining during operation:
Press [SLEEP] to show the remaining time then press [SLEEP] to select the desired time.

Note

- The sleep timer turns OFF automatically the moment you attempt to edit-record a CD using CD Manager function.
- The sleep timer can be used in combination with the play/record timer.
  The sleep timer always has priority.
  Be sure not to overlap timer settings.

Using an external unit B

Listening to an external source

(See page 7 for external unit connection)

1. Press [AUX].
   The system will come on automatically.
2. Start playback from the external source. (For details, refer to the owner's manual of the equipment.)

Recording from an external source

1. Follow steps 1–3 on page 22.
2. Press [AUX].
3. Press [● REC/STOP] (recording starts).
4. Start playback from the external source. (For details, refer to the owner's manual of the equipment.)

Listening with headphones

Reduce the volume level, and connect the headphones.
Plug type: 3.5 mm stereo

Note

Avoid listening for prolonged periods of time to prevent hearing damage.

Convenient functions

Switching displays C

Press [-DISPLAY/–DEMO] to select the desired spectrum analyzer.
Every time you press the button:

Aurora → Wiper → (OFF) → Normal
↑ Peak hold ←

To mute the volume D

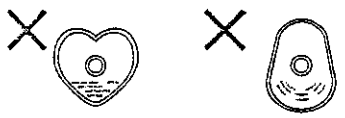
by remote control only

This feature is convenient when you have a telephone call, etc.

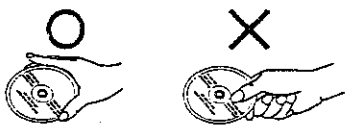
Press [MUTING].
Press the button again to cancel.
"MUTING" goes out.
Muting can also be cancelled by lowering the volume all the way (--dB).

When the system is turned off, the muting operation will be automatically cancelled.

A

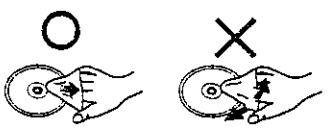


B How to hold CDs



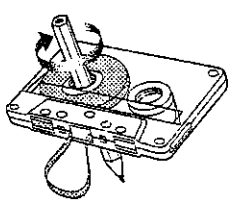
Do not touch the recorded surface.

C How to clean CDs

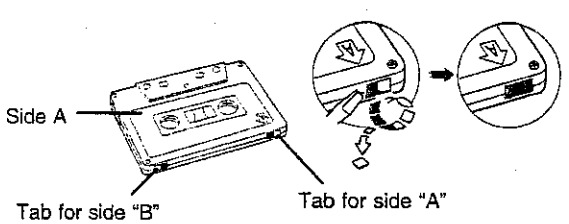


Wipe from inside outward.

D How to take up tape slack

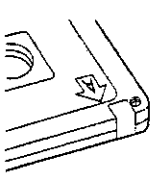


E To protect tapes against further recording

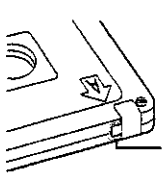


To re-record

Normal position tape



Hi-position tape



Concerning compact discs

With this player, you can only play compact discs having this mark. However, do not use irregular shape CDs. CDs of the sort can damage the unit. A

COMPACT disc DIGITAL AUDIO

Handling precautions

Handle CDs as shown on the left (B ~ C).

- If you are taking the disc from a cold to a warm environment, moisture may form on the disc. Wipe this off with a soft, dry, lint-free cloth before using the disc.
- Do not write on the label side with a ball-point pen or other writing instrument.
- Do not use record cleaning sprays, benzine, thinner, static electricity prevention liquids or any other solvent.
- Do not attach labels or stickers to CDs. (Do not use CDs with exposed adhesive from tape or left over peeled off stickers.)
- Do not use scratch-proof protectors or covers other than those specified for use with this system.

Storage precautions

Be sure to store discs in their cases to protect them from dust, scratches, and warping.

Do not place or store discs in the following places

- Locations exposed to direct sunlight
- Humid or dusty locations
- Locations directly exposed to a heat vent or heating appliance
- In the glove compartment or on the rear deck of an automobile

Concerning cassette tapes

Selection of cassette tapes

Tapes can get caught on the capstans. Use caution with the following types of tapes.

Cassette tapes exceeding 100 minutes
Tapes are made of a thin film material. Do not repeatedly advance and stop the tape, fast-forward it or rewind it.

Endless-tapes
For this unit, it is recommended to use the tape which is appropriate to the auto reverse mechanism.

Always read the instructions provided with your tapes.

Tape slack D

Tape slack may cause the tape to break.
Use a pencil or similar object to take up the slack.

Erasure prevention E

Use a screwdriver or similar object to break out the tab.

To re-record on a protected cassette
Cover the hole with adhesive tape
Do not cover the detection hole on hi-position tapes

Storage precautions

Do not place or store tapes in the following places:

- In high temperature (35°C or higher) or high humidity (80% or higher) areas.
- In a strong magnetic field (near a speaker, on top of a TV, etc.) This can erase a recording.
- Locations exposed to direct sunlight.

Troubleshooting guide

Before requesting service for this unit, check the chart below for a possible cause of the problem you are experiencing. Some simple checks or a minor adjustment on your part may eliminate the problem and restore proper operation.

If you are in doubt about some of the check points, or if the remedies indicated in the chart do not solve the problem, refer to the directory of Authorized Service Centers (enclosed with this unit) to locate a convenient service center, or consult your dealer for instructions.

Problem	Probable cause(s)	Suggested remedy	Reference page(s)
Problems common to all systems			
There is no sound when the system is ON.	Volume is set too low.	Adjust the volume level with the volume control.	13, 15, 19
The location of the various musical instruments is not well defined.	The (+) and (–) connections to one of the speakers are reversed.	Connect the speaker cords correctly.	6
The left and right sounds are reversed.	The left and right connections to the speaker are reversed.	Connect the speaker cords correctly.	6
SC-AK27 **LOW frequency sounds cannot be heard.**	Either the left or the right LOW speaker cable is not connected.	Connect the left and right speaker cables to the LOW terminals.	6
When listening to the external unit, the left and right sounds are reversed.	The left and right connections to the external unit are reversed.	Connect the external unit's cord correctly.	7
There is no sound when a source is being played.	The (+) and (–) wire of the speaker cords are shorted.	Switch the system to the standby mode, and reconnect the speaker cords so that they are not shorted. Then switch on the system.	6
"ERROR" message appears on the display.	Wrong operation has been done.	Operate the unit correctly by following the operating instructions.	
"- - : - -" appears on the display.	• You plugged the power cord in for the first time. • There was a power failure recently.	Set the time.	11
There is no operation when [DISC 1] – [DISC 5] / [TAPE] / [CD] / [TUNER] / [AUX] is pressed during system standby mode.	There was a power failure or the power cord was disconnected from the household AC outlet • during disc changing operation or • when the disc tray is opened.	1. Press [⏻/I] to switch on the system. The tray will open. 2. Take out CD from the tray if there is any, then press [⏏ OPEN/CLOSE 1] to close the tray. The system will restore normal operation.	
While listening to FM broadcasts			
There is a "rushing noise" during a stereo broadcast which is not audible during a monaural broadcast.	The transmitting station is a long distance away.	If you are using an indoor antenna, change to an outdoor antenna.	7
You hear excessive noise during a stereo broadcast, and occasionally the sound disappears.	The installation location and orientation of the antenna are unsuitable.		
The stereo indicator ("STEREO") flickers and does not light completely.	The transmitting station is a long distance away.		
	The power of the TV set or VCR is ON.	Try switching off the TV set or VCR.	
The sound during a stereo broadcast is highly distorted.	There is a building or mountain nearby. [Distortion is caused by interference between the signal from the transmitting station (direct wave) and the signal reflected from the building or mountain (reflected wave).]	Use a high-grade outdoor antenna, and install it in a good location, height, and orientation for reception.	7
While listening to AM broadcasts			
You hear an unusual beat sound.	You are using the system at the same time you are playing a TV set.	Switch off the TV set, or use the system further away from it.	
You hear a low-frequency hum.	The antenna wire is near the power cord.	Separate the antenna wire from the power cord.	

Problem	Probable cause(s)	Suggested remedy	Reference page(s)
When there is a television set nearby			
The picture on the TV disappears or stripes appear on the screen.	The location and orientation of the antenna are incorrect.	If you are using an indoor antenna, change to an outdoor antenna.	7
	The wiring at the back of the system is unsuitable.	Separate the antenna wire of the TV set from the system.	
When listening to tapes			
Sound is low, intermittent, poor quality, noisy, scratchy, or unsteady.	Heads are dirty.	Clean the heads.	35
	Dolby-NR is set in correctly. Except for SC-AK17 model and SC-AK27 Australia and New Zealand model	Match Dolby-NR ON/OFF according to the type of recording you made.	19
The deck does not enter the recording mode.	The erase-prevention tabs are removed from the cassette.	Attach tape to cover the space left by removal of the erase-prevention tabs.	33
While listening to compact discs			
The display does not show the correct indication. Disc play does not start when you press the play button.	The disc is upside down.	Set the disc with the label facing upward.	14
	The disc is dirty.	Wipe the disc with a soft cloth.	33
	The disc is scratched.	Replace the disc with a new one.	
	The disc is badly warped.		
	The disc is a nonstandard one.	Replace the disc with a different one.	33
	There is condensation inside the CD changer.	Wait for 60 minutes before using the CD player.	
A certain music passage can't be played correctly.	The disc is dirty.	Wipe the disc with a soft cloth.	33
While using the remote control			
The system cannot be operated with the remote control.	The batteries are installed in the reverse polarity.	Re-insert the batteries in the correct polarity.	5
	The batteries are run-down.	Replace the batteries with new batteries.	5

Maintenance

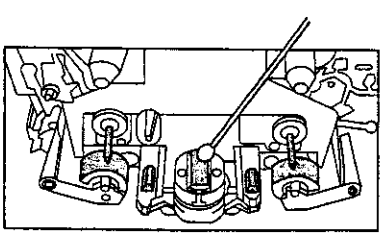
If the surfaces are dirty

To clean this unit, wipe with a soft, dry cloth.
If the surfaces are extremely dirty, use a soft cloth dipped in a soap-and-water solution or a weak detergent solution.

- Never use alcohol, paint thinner or benzine to clean this unit.
- Before using chemically impregnated cloth, read the instructions that came with the cloth carefully.

For a cleaner crisper sound

We recommend that you periodically clean parts (the shaded portion in the figure below) the tape contacts like the heads.
Do not use any solution other than alcohol for head cleaning.



AMPLIFIER SECTION SC-AK27

RMS power output
THD 10%, both channels driven
100 W per channel (6 Ω)
1 kHz continous power output
THD 1%, both channels driven (DIN)
74 W per channel (6 Ω)
Input sensitivity
AUX 250 mV
Input Impedance
AUX 13.3 kΩ

AMPLIFIER SECTION SC-AK17

RMS power output
For United Kingdom
THD 10%, both channels driven
30 W per channel (6 Ω)
1 kHz continous power output
THD 1%, both channels driven (DIN)
20 W per channel (6 Ω)
For others
THD 10%, both channels driven
45 W per channel (6 Ω)
1 kHz continous power output
THD 1%, both channels driven (DIN)
35 W per channel (6 Ω)
Input sensitivity
AUX 250 mV
Input Impedance
AUX 13.2 kΩ

FM TUNER SECTION

Frequency range
87.50 – 108.00 MHz (50 kHz steps)
Sensitivity
For Australia and New Zealand
S/N 26dB 2.2 µV
For others
S/N 26dB 1.5 µV
Antenna terminal(s) 75 Ω (unbalanced)

AM TUNER SECTION

Frequency range
522 – 1629 kHz (9 kHz steps)
Sensitivity
S/N 20 dB 560 µV/m

CASSETTE DECK SECTION

Track system 4 track, 2 channel
Heads
Record/playback Solid permalloy head
Erasure Double gap ferrite head
Motor DC servo motor
Recording system AC bias 100 kHz
Erasing system AC erase 100 kHz
Tape speed 4.8 cm/s
Frequency response
(+3, –6 dB at DECK OUT)
NORMAL (TYPE I) 35 Hz – 14 kHz
HIGH (TYPE II) 35 Hz – 14 kHz
S/N SC-AK17 50 dB (A weighted)
S/N SC-AK27
For Australia and New Zealand
50 dB (A weighted)
For others
Dolby NR off 50 dB (A weighted)
Dolby NR on 60 dB (CCIR)
Wow and flutter 0.18 % (WRMS)
Fast forward and rewind time
Approx. 120 seconds with C-60 cassette tape

CD SECTION

Sampling frequency 44.1 kHz
Decoding 16 bit linear
Beam source/wave length
Semiconductor laser/780 nm
Number of channels Stereo
Frequency response
20 Hz–20 kHz (+1, –2 dB)
Wow and flutter Below measurable limit
Digital filter 8 fs
D/A converter MASH (1 bit DAC)

SPEAKER SECTION SB-AK27

Type 3 way speaker system
Speaker(s)
Super Woofer 14 cm cone type
Woofer 12 cm cone type
Tweeter 6 cm cone type
Impedance Total 6 Ω
Input power Total 100 W (Music)
Output sound pressure level
85 dB/W (1.0 m)
Cross over frequency 150 Hz, 4 kHz
Frequency range 48 Hz–22 kHz (–16 dB)
60 Hz–20 kHz (–10 dB)
Dimensions (WxHxD) 220 x 330 x 279 mm
Weight 4.2 kg

SPEAKER SECTION SB-AK17

Type 2 way speaker system
Speaker(s)
Woofer 12 cm cone type
Tweeter 6 cm cone type
Impedance 6 Ω
Input power 100 W (Music)
Output sound pressure level
85 dB/W (1.0 m)
Cross over frequency 8 kHz
Frequency range 45 Hz–22 kHz (–16 dB)
Dimensions (WxHxD) 210 x 330 x 250 mm
Weight 2.75 kg

GENERAL SC-AK27

Power supply
For United Kingdom, Australia and New Zealand AC 230-240 V, 50 Hz
For others AC 230 V, 50 Hz
Power consumption 145 W
Power consumption in standby mode
ECO mode on 0.6 W
ECO mode off 12 W
Dimensions (WxHxD) 270 x 331 x 340 mm
Weight
For Australia and New Zealand 8.1 kg
For others 7.6 kg

GENERAL SC-AK17

Power supply
For United Kingdom, Australia and New Zealand AC 230-240 V, 50 Hz
For others AC 230 V, 50 Hz
Power consumption 120 W
Power consumption in standby mode
ECO mode on 0.6 W
ECO mode off 12 W
Dimensions (WxHxD) 270 x 331 x 316 mm
Weight
For United Kingdom 6.7 kg
For others 7.0 kg

Notes:
1. Specifications are subject to change without notice.
   Weight and dimensions are approximate.
2. Total harmonic distortion is measured by the digital spectrum analyzer.

MASH is a trademark of NTT.

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